STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS — STATE OF COLORADO

P.E., R.O.W. & UTILITIES UNDER IR 25-2(174)

FEDERAL FUND REGION NO.	DIVISION	PROJECT NO.	SHEET NO.
VIII	COLORADO	IR 25-2(191)	1

AS CONSTRUCTED

NO REVISIONS ☐ REVISED ☐ VOID ☐

	REVISIONS		
P-1	3-22-88	1, 11, 12, 15, 16, 25, 63, 119, 127,	
		129, 130, 175, 184	J.K.K.

PLAN AND PROFILE OF ~~PROPOSED~~ AS CONSTRUCTED

FEDERAL AID PROJECT NO. IR 25-2(191)

STATE HIGHWAY NOS. 6 & 25

DENVER COUNTY

PROJECT NO. IR 25-2(191)

TABULATION OF LENGTH AND DESIGN DATA

STATION	STRUCTURE LIN. FT.	STRUCTURE MILE	ROADWAY LIN. FT.	ROADWAY MILE
RAMP 'E'				
STR. NO. F-16-OG 602+78.57 TO 616+56.62	1,378.05	0.2610		
RAMP 'H'				
900+39.86 TO 903+07.50			267.64	0.0507
STR. NO. F-16-OK 903+07.50 TO 906+18.00	310.50	0.0588		
STR. NO. F-16-NO 906+18.00 TO 912+85.32	667.32	0.1264		
RAMP 'I'				
1000+00.00 TO 1008+95.32			895.32	0.1696
OSAGE RAMP				
0+00.00 TO 3+89.19			389.19	0.0737

SUMMARY	LIN. FT.	MILES
STRUCTURE F-16-OG	1,378.05	0.2610
STRUCTURE F-16-OK	310.50	0.0588
STRUCTURE F-16-NO	667.32	0.1264
ROADWAY	1,552.15	0.2940
PROJECT GROSS LENGTH	3,908.02	0.7402

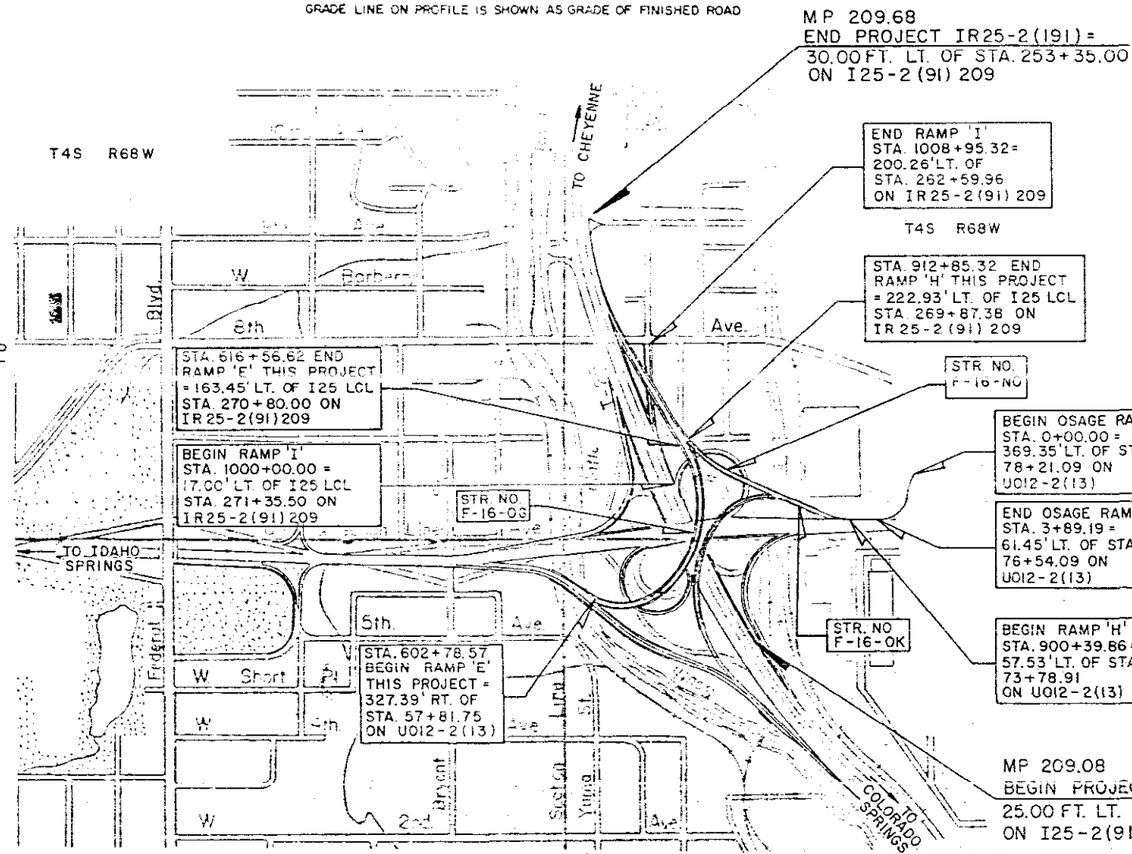
DESIGN DATA	RAMP 'E'	RAMP 'H'	RAMP 'I'	OSAGE RAMP
MAXIMUM DEGREE OF CURVATURE	14°19 26"	10°52 51"	8°00 00"	38°11 50"
MAXIMUM GRADE	4.176 %	5.640 %	-3.430%	-1.580%
MINIMUM S.S.D. HORIZONTAL	227	258	300	180
MINIMUM S.S.D. VERTICAL	340	248	284	910
MAXIMUM DESIGN SPEED	35 MPH	35 MPH	35 MPH	20 MPH

SCALES OF ORIGINAL DRAWINGS

ON PLAN, 1 IN. = 50 FT.

ON PROFILE { 1 IN. = 50 FT. HORIZONTAL; 1 IN. = 10 FT. VERTICAL

GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD



T4S R68W

T4S R68W

CITY OF DENVER

ORIGINAL SCALE IN FEET

500 0 500 1000

1" = 500'

INDEX OF SHEETS

NEW AND REVISED STANDARDS

M-606-12 GUARD RAIL, TYPE 4, CONCRETE BARRIER (9 SHEETS) 2-18-83

DIVISION OF HIGHWAYS

APPROVED: [signature] 7-20-87

CHIEF ENGINEER DATE

AS CONSTRUCTED INFORMATION

CONTRACTOR CENTRIC-JONES

Resident ENGINEER G.R. SELF (Project or Resident)

PROJECT STARTED OCTOBER 5, 1987

PROJECT COMPLETED [illegible]

[signature] 3-22-88

Asst Engr 3-22-88

TITLE DATE

De LEUW CATHER & COMPANY DENVER, CO.

[signature] 7-20-87

PROJECT MANAGER

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____ DATE

DIVISION ADMINISTRATOR

J.K.K. / Dist. VI / P.D.L.

AS CONSTRUCTED									
NO. REVISIONS 7-21-89	REVISED		VOID		FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
					VIII	COLORADO	IR25-2(191)	2	242

THE STANDARD PLAN SHEETS INDICATED HEREON BY A MARKED BOX ARE TO BE USED TO CONSTRUCT THIS PROJECT.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

STANDARD PLANS LIST

M & S STANDARDS – JANUARY, 1982

AS CONSTRUCTED		FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS 7-2-93 REVISED ☐ VOID ☐		VIII	COLO.	IR 25-2(191)	3	242

MODIFIED STATE PLANE CONTROL POINTS SHOWN ON INTERCHANGE CONTROL POINT DIAGRAM

CONTROL POINT #	NORTHING	EASTING	CONTROL POINT #	ELEV.	DESCRIPTION
1	688025.4089	2138794.9997	1		RANDOM SET 60D NAIL WEST OF RR TRACK AT QUIVAS AND 3RD AVE
13	688545.7433	2137946.6341	13	5235.23	(TBM 949-57) SET 40D NAIL WEST SIDE OF I-25 SOUTH OF 6TH AVE
19	691049.9066	2135992.5343	19		#5 REBAR W/ALUM CAP STAMPED "13" SET 60D NAIL @ S.W. COR OF R.R. CROSSING AND 8TH AVE.
20	691109.6542	2136803.5939	20		SET 60D NAIL AT N.W. COR 8TH AND WYANDOT
21	690640.3086	2136836.8304	21	5213.77	(TBM 949-51C) #5 REBAR W/ALUM CAP STAMPED "21"
22	689504.5126	2136585.0702	22	5205.02	(TBM 949-57E) #5 REBAR W/ALUM CAP STAMPED "22"
23	689556.6237	2133792.7917	23		CHISELED "X" ON WALK AT 6TH AND FEDERAL
24	690335.8090	2137084.0945	24		SET 60D NAIL P.O.L. BET. 21 & 151
25	690422.9322	2137106.6080	25	5198.42	(TBM 949-51B) FND. 1 1/4" AXLE IN DENVER R.R. AT 7TH AVE AND VALLEJO
26	691082.8686	2137114.3383	26		FND. PK NAIL AT 8TH AVE. AND VALLEJO
27	689109.9843	2136423.7212	27		FND. 1 1/2" AXLE IN A DENVER R.R. AT E. END 5TH AVE. AND R.R.
28	689107.5633	2135900.8383	28		FND. #8 REBAR IN A DENVER R.R. AT 5TH AVE. AND ALCOTT ST.
29	689493.4001	2135906.8505	29		SET P.K. NAIL AT APROX CL ALCOTT EXT ON RAMP FROM BRYANT ST.TO E. BOUND 6TH AVE.
30	689533.8188	2136265.8632	30		SET 60D NAIL AT 6TH AND WEST SIDE PLATTE
31	688600.1709	2137551.7582	31	5201.52	(TBM 949-57A) CHISELED "X" IN BIKE PATH
32	688773.7398	2137206.3225	32	5205.01	(TBM 949-57B) CHISELED "X" IN BIKE PATH
33	689051.6087	2136764.6278	33	5199.34	(TBM 949-57C) CHISELED "X" IN BIKE PATH
34	689270.8007	2136556.3551	34	5198.84	(TBM 949-57D) CHISELED "X" IN BIKE PATH
37	689106.0606	2135574.7182	37		FND #8 REBAR IN R.R.@ INT OF 5TH AND BRYANT STREET
38	689103.7469	2135087.5778	38		FND #8 REBAR IN R.R. IN 5TH AVE.
39	689101.2500	2134576.5460	39		FND ROUND HEAD SPIKE @ 5TH AVE AND RAMP TO 6TH AVE.
40	689376.0523	2134607.0171	40		SET 40D NAIL APPROX. 5' E OF TBC ON RAMP AND IN LINE W/W. BLDG LINE OF VALIANT PRODUCTS CORP.
151	689667.6073	2137626.6970	151		FND. PK NAIL IN ISLAND AT W. BOUND I-25 AND E. BOUND 6TH
501	688041.2818	2138760.7600	501	5218.31	SET 60D NAIL AT S. EDGE OF CONC. BASE OF S. BILLBOARD POST (HVC 19-17-1)
538	689671.3430	2133791.5282	538		FND. "X" CHISELED ON WALK ON E. SIDE BRIDGE ON FEDERAL AND CL 6TH
539	689671.1106	2133727.5162	539		FND. "X" CHISELED ON WALK ON W. SIDE BRIDGE ON FEDERAL AND 6TH AVE.
540	690425.2252	2137406.6892	540	5198.82	(TBM 949-51A) FND 1 1/4 AXLE IN DENVER R.R. AT 7TH AVE AND UMATILLA
541	689129.7372	2136391.5163	541		FND. PK NAIL IN ASPHALT N.WEST 5TH AND RR
542	689377.7607	2135937.5305	542		FND. #3 REBAR W/PLASTIC CAP DEST. W ALCOTT
543	689479.1452	2136272.4591	543		FND #4 REBAR NO CAP NE LOT COR SCHMID
567	689104.4801	2135241.9573	567		FND #8 REBAR W/CAP LS 152 1.5 FT S OF THE W END OF A CHAIN LINK FENCE
568	689102.9646	2134927.2873	568		FND #8 REBAR IN A RANGE BOX @ INT OF 5TH AND DALE CT. ON LINE WITH #38 &#39
569	689523.1309	2134749.9926	569		FND #3 REBAR W/CAP LS 152 1.5 FT S OF THE W END OF A CHAIN LINK FENCE
570	689277.8429	2135884.7251	570		FND CHISELED "X" ON TOP OF W CURB ALCOTT
648	689101.4278	2134601.3653	648		FND BOLT OR SPIKE 0.05 BELOW ASPHALT
898	691414.0806	2137223.4397	898		FND 1-1/4 AXLE IN RANGE BOX @ VALLEJO & BANBERRY
901	690197.0403	2137873.1081	901		FND 3" MONU LS 7104 IN SEARS WAREHOUSE INC FENCE LINE
902	690991.5755	2137856.9829	902		FND 1-1/4 AXLE IN SEARS WAREHOUSE FENCE LINE
2003	691915.9889	2135949.1192	2003	5199.07	FND 60 D NAIL AT 9TH AND ALCOTT ST. WEST OF COLO.AND SOUTHERN RR
2004	691846.9725	2137191.4133	2004	5198.07	FND P.K. AT COR OF CONC. PAN IN THE SW QUAD. OF MULBERRY AND VALLEJO ST. (HVC 4) BK. 705/5
2009	690383.1161	2135597.4886	2009	5199.99	FND P.K. AT BACK OF WALK SE QUAD. AT 7TH AND BRYANT (HVC 9) BK.705/3
2010	690899.9591	2138196.9533	2010	5215.50	FND HUB NE OF WAREHOUSE SE OF 8TH AND HARITAN ST. (HVC 10) BK.705/6
2015	689146.6983	2133843.3737	2015	5256.49	FND HUB SE BALLFIELD AT FEDERAL AND WEST 5TH (HVC15) BK. 705/2
2016	689121.2619	2135649.7893	2016	5203.69	FND P.K. IN BACK OF CURB AND PAN IN NE QUAD. AT 5TH AND BRYANT (HVC 16) BK. 705/2
2017	689032.7263	2137913.4845	2017	5205.11	FND HUB IN SE QUAD. OF 6TH I-25 INTERCHANGE (HVC 17) BK.705/1
2019	688862.5223	2136657.8348	2019	5205.44	FND HUB SW QUAD OF 6TH AND I-25 SE TUMA ST AND WEST 5TH (HVC 19) BK. 705/2

CONTROL POINTS NOT SHOWN ON INTERCHANGE CONTROL POINT DIAGRAM

CONTROL POINT #	NORTHING	EASTING	CONTROL POINT #	ELEV.	DESCRIPTION
2	688081.0271	2140405.1242	2		CHISELED "X" ON WALK AT NE CORNER 3RD AND LIPAN
3	687116.2257	2140371.8492	3	5232.13	SET P.K. NAIL AT THE INTERSECTION OF CONC. PANS AT 1ST AND LIPAN (HVC 18-8-1) BK. 949/3
4	687141.8270	2141221.4826	4		SET 60 D NAIL AT 1ST AND SANTA FE
5	685569.3803	2141234.2059	5		SET 60 D NAIL AT NW COR RR CROSSING AND SANTA FE
6	684910.6002	2141490.5071	6		FND CHISELED "X" ON WALK AT NW COR OF BYERS PL. AND SANTA FE
7	684543.8651	2141767.4116	7		SET 60 D NAIL AT TOP OF RETAINING WALL AT SANTA FE AND ALAMEDA
8	684544.7222	2140615.6566	8		CHISELED "X" ON WALK AT PLATTE RIVER DRIVE AND ALAMEDA
9	685824.2478	2140201.7827	9		SET 60 D NAIL AT CURVE IN PLATTE RIVER DRIVE
10	685839.3331	2138396.1376	10		FOUND CHISELED "X" IN WALK AT NW COR RARITAN AND BAYAUD
11	686392.6988	2138461.4659	11		SET 60 D NAIL APPROX. 10 'E OF E TBC OF RARITAN ST.
12	686782.8168	2137783.9133	12		SET 60 D NAIL 1 'W OF W TBC ON TEJON AT APPROX. S FLOW LINE OF IRVINGTON EXTENDED
14	693202.2216	2136530.8428	14		SET 60 D NAIL WEST OF I-25 AND 12TH
15	693217.9893	2135941.2115	15		SET 40 D NAIL IN RR TIE ON W SIDE OF SOUTH PLATTE AND 12TH
16	693839.2213	2135769.8737	16		SET 40 D NAIL AT 13TH AND WEST SIDE OF SOUTH PLATTE
17	693814.6071	2136266.6299	17		SET 40 D NAIL AT SW COR 13TH AVE AND ZUNI ST.
18	693888.2350	2137364.8412	18		SET P.K. NAIL AT NE COR 13TH AND UMATILLA
35	694125.9943	2133755.3430	35		CHISELED "X" ON SIDEWALK ON E SIDE FEDERAL APPROX. 100'S OF HOWARD PL.
36	695078.5010	2133708.4583	36		FND CHISELED "X" ON THE W. FACE OF MEDIAN CURB IN FEDERAL BRIDGE OVER COLFAX, N1/4 COR SEC. 5.
502	684621.1313	2141602.1489	502	5228.06	SET P.K. NAIL ON BACK OF WALK AND SE COR OF CONC. GAS ISLAND AT STANDARD STATION AT SANTA FE AND ALAMEDA (HVC 18-7-1) BK. 949/3
503	684533.1715	2140831.3575	503	5220.65	SET 60 D NAIL AT COR OF CONC. WALK ON NORTH SIDE OF ALAMEDA ACROSS FROM LIPAN ST. (HVC 18-7-2) BK. 949/3
504	686294.7756	2138813.4477	504	5212.05	SET 40 D NAIL 1'E OF A FENCE COR, IN LINE WITH FENCE TO THE WEST (HVC 20-1-1) BK. 949/2
505	688013.1587	2138046.3811	505	5209.64	SET 60 D NAIL 1'W OF A POWER POLE (HVC 20-1-2) BK. 949/2
506	693279.2719	2136353.5773	506	5193.33	SET 40 D NAIL 1'W OF A POWER POLE AT SW COR RENT-IT BLDG. (HVC 21-8-3) BK.949/17
507	694128.7585	2136349.8173	507	5192.70	SET 40 D NAIL 1'W OF SW FENCE COR OF SIEGEL OIL CO. (HVC 21-8-2) BK. 949/17
508	694061.3072	2137369.1137	508	5194.12	SET 40 D NAIL 1'W OF A FENCE COR (HVC 20-8-2) BK.949/17
2001	693691.8757	2135787.1973	2001	5197.05	FOUND 60 D NAIL 1'W OF END OF FENCE AT 13TH AND WEST RIGHT OF WAY FENCE OF COLORADO AND SOUTHERN RAILROAD (HVC 1) BK. 705/4
2002	693243.7166	2137278.1433	2002	5195.66	FOUND P.K. NAIL AT WEST END OF PAINT STRIPE AT 12TH AND UMATILLA ST. (HVC 2) BK. 705/5
2008	690361.6725	2133693.4581	2008	5252.81	FND HUB W FEDERAL @ 7TH AND BARNUM PARK (HVC 8)
2021	688900.3653	2139686.5017	2021	5221.12	FOUND HUB IN RAILROAD YARD AT NAVAJO AND BETWEEN 4TH AND 5TH (HVC 21) BK. 705/1
2022	687787.5973	2136559.6359	2022	5205.07	FND HUB @ TUMA ST AND 2ND (HVC 22) BK 705/2
2023	688015.7951	2139672.4343	2023	5224.54	FOUND HUB AT NAVAJO AND 3RD. (HVC 23) BK. 705/1

ALL COORDINATES SHOWN HEREON ARE MODIFIED STATE PLANE COORDINATES MODIFIED FROM THE POINT OF ORIGIN (N=0, E=2,000,000) AS FOLLOWS:
MEAN LATITUDE= 39° 39'30"
MEAN ELEVATION= 5500' AMSL
COMBINED FACTOR= 0.999721454

TO OBTAIN STATE PLANE COORDINATES:
1) MULTIPLY THE MODIFIED NORTHING BY THE COMBINED FACTOR TO OBTAIN THE STATE PLANE NORTHING.
2) MULTIPLY THE DIFFERENCE BETWEEN THE MODIFIED EASTING AND 2,000,000 BY THE COMBINED FACTOR AND THEN ADD THE 2,000,000 BACK IN TO OBTAIN THE STATE PLANE EASTING.
THIS CONTROL NETWORK IS BASED ON CONTROL ESTABLISHED BY MERRICK & CO. UNDER JOB NO. 013 3531.

I 25 / 6th Ave.
INTERCHANGE
CONTROL POINTS

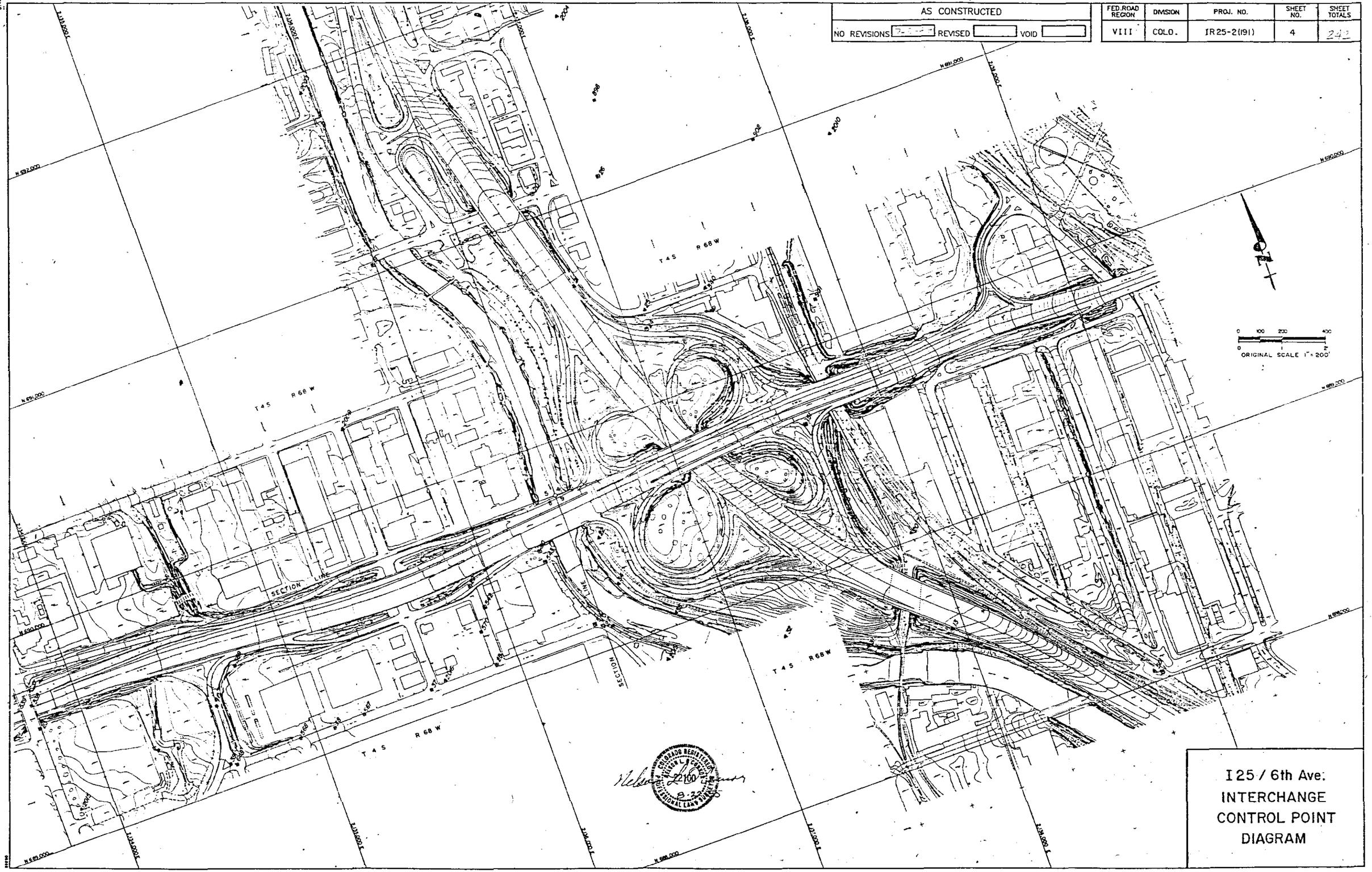
COLORADO REGISTERED MILTON L. BROOKS 22100 PROFESSIONAL LAND SURVEYOR

Milton L. Brooks 7-2-93

TE OF COLORADO
ATE DEPARTMENT OF HIGHWAYS
IVISION OF HIGHWAYS
. O. H. FORM NO. 126
EV. FEB. 1984

AS CONSTRUCTED					
NO REVISIONS	REVISED	VOID			

FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR25-2(191)	4	242



I 25 / 6th Ave.
INTERCHANGE
CONTROL POINT
DIAGRAM

AS CONSTRUCTED					
NO REVISIONS 7-[illegible]-89	REVISED		VOID		

FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	5	242

1"=200' scale 200 0 200 400 feet

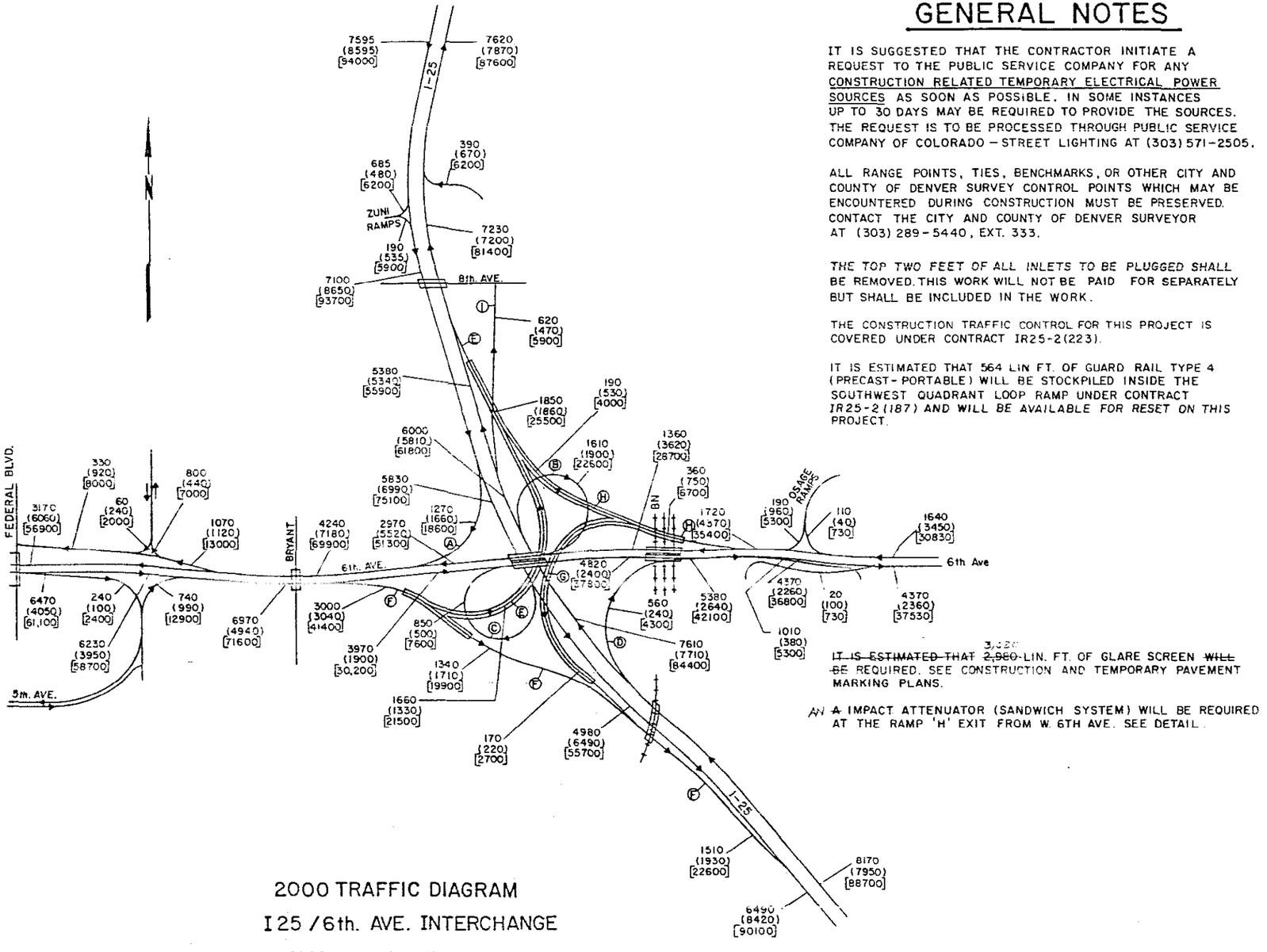
ORIGINAL SCALE

I 25/6th Avenue
Improvements
Package IR25-2(191)

ORIGINAL SCALE 1" = 200'

COLORADO
DEPARTMENT OF HIGHWAYS
DIV. OF HIGHWAYS
FORM NO. 126
REV. 1984

AS CONSTRUCTED						
NO REVISIONS ☐	REVISED 7-21-89	VOID ☐	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
			VIII	COLO.	IR 25-2(191)	6	242



2000 TRAFFIC DIAGRAM

I 25 / 6th. AVE. INTERCHANGE

9020 = A.M. PEAK HOUR

(10300) = P.M. PEAK HOUR

[98,000] = AVERAGE DAILY TRAFFIC (DIRECTIONAL)

GENERAL NOTES

IT IS SUGGESTED THAT THE CONTRACTOR INITIATE A REQUEST TO THE PUBLIC SERVICE COMPANY FOR ANY CONSTRUCTION RELATED TEMPORARY ELECTRICAL POWER SOURCES AS SOON AS POSSIBLE. IN SOME INSTANCES UP TO 30 DAYS MAY BE REQUIRED TO PROVIDE THE SOURCES. THE REQUEST IS TO BE PROCESSED THROUGH PUBLIC SERVICE COMPANY OF COLORADO – STREET LIGHTING AT (303) 571-2505.

ALL RANGE POINTS, TIES, BENCHMARKS, OR OTHER CITY AND COUNTY OF DENVER SURVEY CONTROL POINTS WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION MUST BE PRESERVED. CONTACT THE CITY AND COUNTY OF DENVER SURVEYOR AT (303) 289-5440, EXT. 333.

THE TOP TWO FEET OF ALL INLETS TO BE PLUGGED SHALL BE REMOVED. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.

THE CONSTRUCTION TRAFFIC CONTROL FOR THIS PROJECT IS COVERED UNDER CONTRACT IR25-2(223).

IT IS ESTIMATED THAT 564 LIN FT. OF GUARD RAIL TYPE 4 (PRECAST-PORTABLE) WILL BE STOCKPILED INSIDE THE SOUTHWEST QUADRANT LOOP RAMP UNDER CONTRACT *IR25-2(187) AND WILL BE AVAILABLE FOR RESET ON THIS* PROJECT.

~~IT IS ESTIMATED THAT 2,980 LIN. FT. OF GLARE SCREEN WILL BE REQUIRED.~~ 3,020 SEE CONSTRUCTION AND TEMPORARY PAVEMENT MARKING PLANS.

~~AN~~ A IMPACT ATTENUATOR (SANDWICH SYSTEM) WILL BE REQUIRED AT THE RAMP 'H' EXIT FROM W. 6TH AVE. SEE DETAIL.

GENERAL NOTES

PLAN QUANTITIES OF SURFACING MATERIALS ARE BASED ON THE FOLLOWING UNIT WEIGHTS AND RATES OF APPLICATION.

HOT BITUMINOUS PAVEMENT (GRADING E & EX)@110 LBS./ SQ. YD./ INCH. EMULSIFIED ASPHALT (SLOW-SETTING) FOR TACK @ 0.10 GAL./ SQ. YD. (DILUTED)

FOR QUANTITIES, DILUTED EMULSIFIED ASPHALT FOR TACK COAT WAS ESTIMATED AT 1 PART EMULSIFIED ASPHALT AND 1 PART WATER.

RATES OF APPLICATION SHALL BE AS DIRECTED BY THE ENGINEER AT THE TIME OF APPLICATION. RATES SHOWN ABOVE ARE APPROXIMATE AND ARE SUBJECT TO ADJUSTMENT ON CONSTRUCTION.

THE FOLLOWING SHALL BE FURNISHED WITH EACH BITUMINOUS PAVER:

1. *A SKI TYPE DEVICE AT LEAST 30 FEET IN LENGTH.*
2. SHORT SKI OR SHOE.
3. 1500 FEET OF CONTROL LINE AND STAKES. THE CONTROL LINE WILL BE REQUIRED FOR ALL LAYERS OR AS DIRECTED BY THE ENGINEER.

ANY LAYER OF BITUMINOUS PAVEMENT THAT IS TO HAVE A SUCCEEDING LAYER PLACED THEREON SHALL BE COMPLETED FULL WIDTH BEFORE SUCCEEDING LAYER IS PLACED.

WATER SHALL BE USED AS A DUST PALLIATIVE WHERE REQUIRED. LOCATIONS SHALL BE AS ORDERED. WATER USED FOR THIS PURPOSE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.

UTILITIES AS SHOWN ON PLAN AND PROFILE SHEETS ARE PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR'S ATTENTION IS DIRECTED TO PARAGRAPH 107.18 OF THE STANDARD SPECIFICATIONS CONCERNING UTILITIES.

THE CONTRACTOR WILL CALL 534-6700 FOR UTILITY LOCATIONS PRIOR TO ANY DIGGING.

ALL DIMENSIONS, ELEVATIONS, AND RADII ARE TO EDGE OF DRIVING LANE (LIP OF GUTTER) UNLESS OTHERWISE NOTED.

TYPE OF COMPACTION FOR EMBANKMENT SHALL BE AASHTO T99.

DEPTH OF MOISTURE-DENSITY CONTROL FOR THIS PROJECT SHALL BE AS FOLLOWS:

FULL DEPTH OF ALL EMBANKMENTS.
BASES OF CUTS AND FILLS - 0.67 FT.
EXCAVATION REQUIRED FOR COMPACTION OF BASES OF CUTS AND FILLS WILL BE CONSIDERED AS SUBSIDIARY TO THAT OPERATION AND WILL NOT BE PAID FOR SEPARATELY.

THE MINIMUM THICKNESS OF TOPSOIL (HAUL) SHALL BE 4 INCHES.
~~IT IS ESTIMATED THAT 2,546~~ 2,423 CU. YDS. ~~WILL BE~~ REQUIRED.
THE TOPSOIL IS TO BE CONTRACTORS SOURCE.

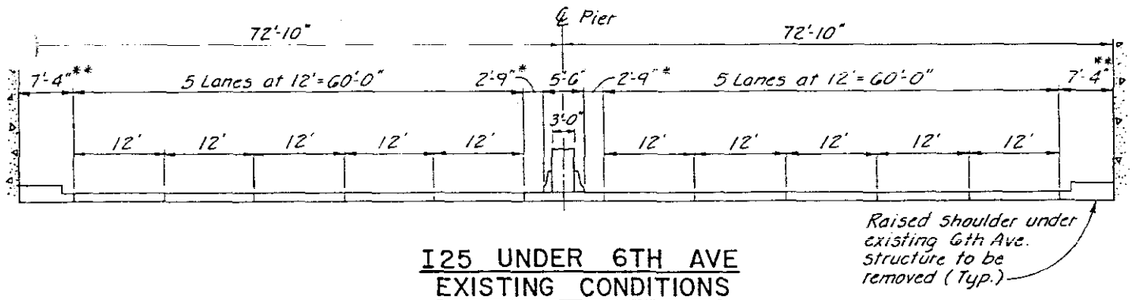
INTERSTATE RIGHT-OF-WAY FENCING SHALL BE MAINTAINED AT ALL TIMES AS DIRECTED BY THE ENGINEER. COST TO BE INCLUDED IN THE WORK.

A SUGGESTED SEQUENCE OF CONSTRUCTION CAN BE FOUND ON DETOUR PLAN AND CONSTRUCTION PHASING SHEET. THIS SEQUENCE IS FOR INFORMATION ONLY. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR IS TO SUBMIT A CONSTRUCTION SEQUENCING PLAN FOR ENGINEER'S APPROVAL.

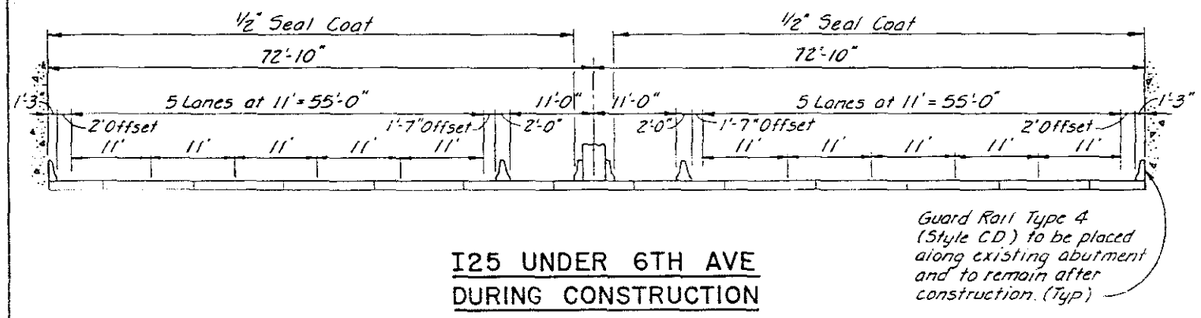
ALL GUARD RAIL TYPE 5 REMOVED ON THIS PROJECT IS TO REMAIN THE PROPERTY OF THE STATE AND IS TO BE STOCKPILED ON THE PROJECT SITE.

THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AND/OR TOES OF SLOPE AS SHOWN ON THE PLANS AND CROSS SECTIONS. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITION BY THE CONTRACTOR AT HIS OWN EXPENSE. CONSTRUCTION ACTIVITIES, IN ADDITION TO NORMAL CONSTRUCTION PROCEDURES, SHALL INCLUDE THE PARKING OF VEHICLES OR EQUIPMENT, DISPOSAL OF LITTER AND ANY OTHER ACTION WHICH WOULD ALTER EXISTING CONDITIONS.

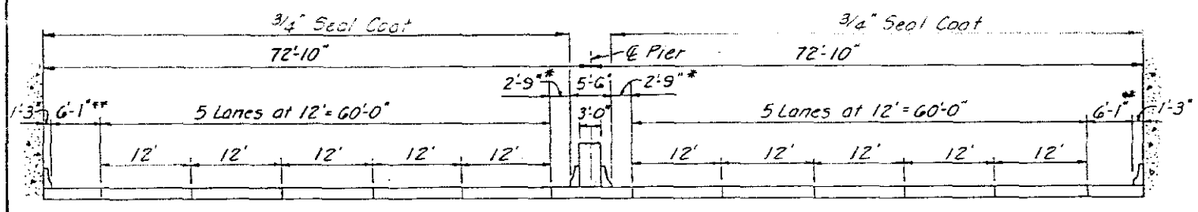
AS CONSTRUCTED	FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS 7/31/74 REVISED ____ VOID ____	VIII	COLO.	IR25-2(191)	7	242



I25 UNDER 6TH AVE
EXISTING CONDITIONS

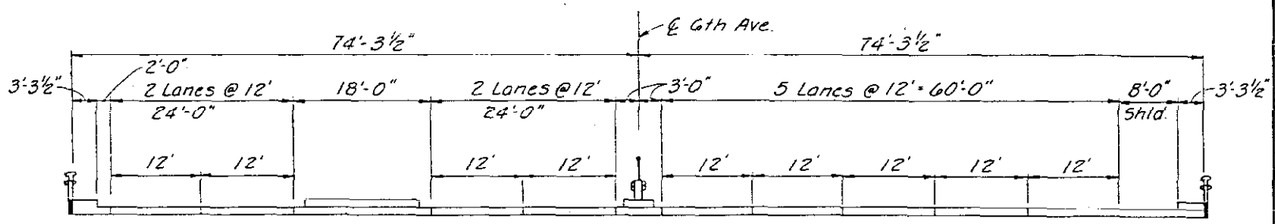


I25 UNDER 6TH AVE
DURING CONSTRUCTION

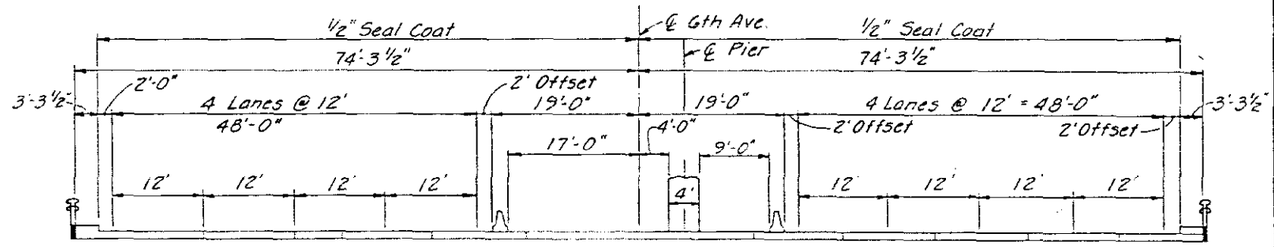


I25 UNDER 6TH AVE
FINAL CONFIGURATION
(FUTURE)

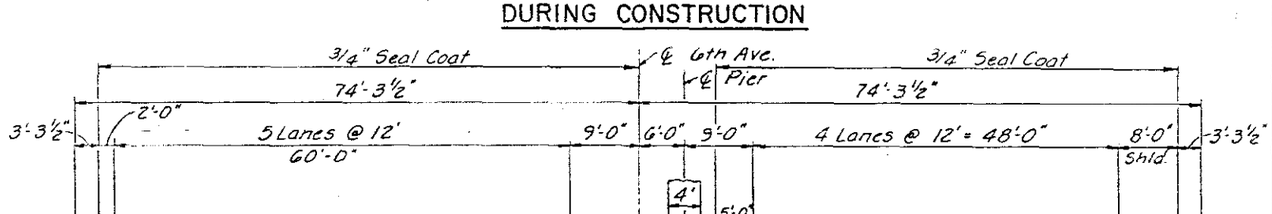
* Shoulder varies, 2'-1" min.
** Shoulder varies, 5'-6" min.



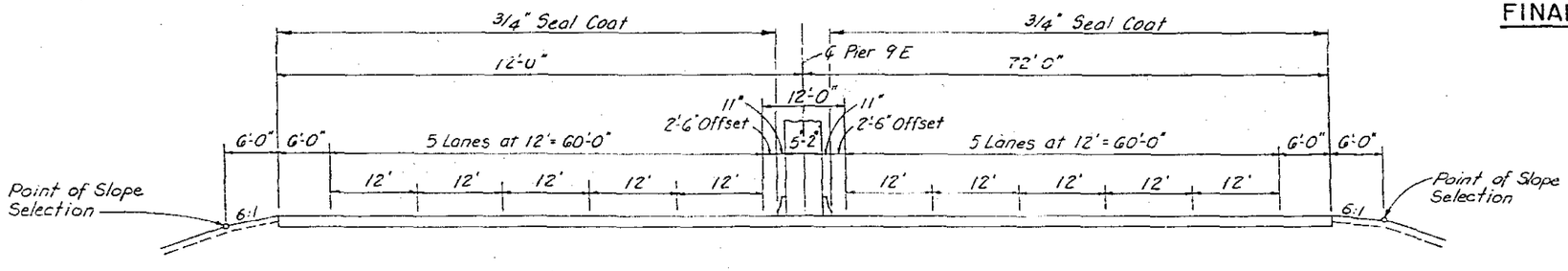
6TH AVE NEAR I25
EXISTING CONDITIONS



6TH AVE NEAR I25
DURING CONSTRUCTION



6TH AVE NEAR I25
FINAL CONFIGURATION
(FUTURE)



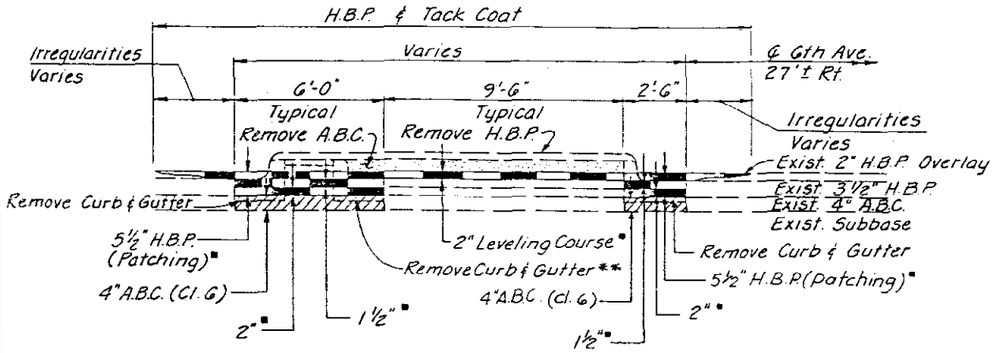
I25 AT RAMP "E" PIER
FINAL CONFIGURATION

NOTE:
I-25 Sections Looking North
6TH Ave. Sections Looking East

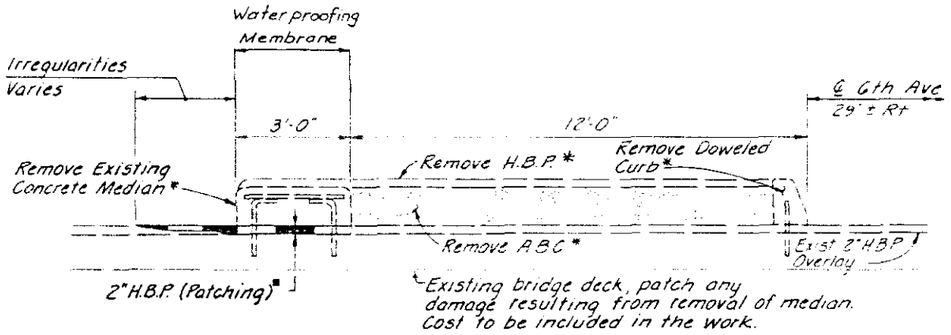
6TH AVE AND I25
TYPICAL SECTIONS

COLORADO
DEPARTMENT OF HIGHWAYS
FORM NO. 126
1984

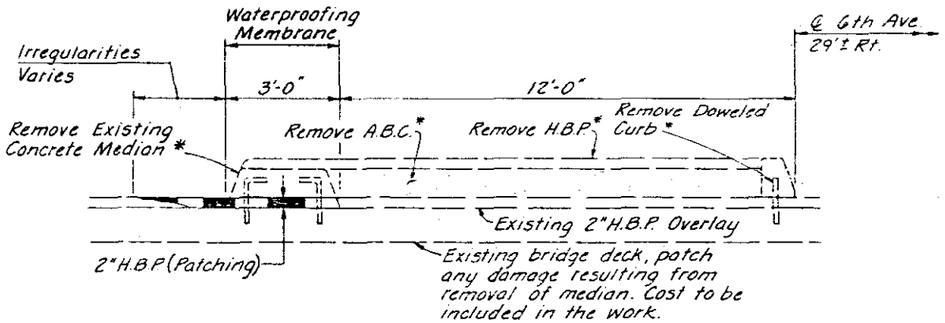
AS CONSTRUCTED						
NO REVISIONS	REVISED 7-21-89	VOID	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
			VIII	COLO.	IR 25-2 (191)	8	242



STA. 57+75 TO STA. 75+05

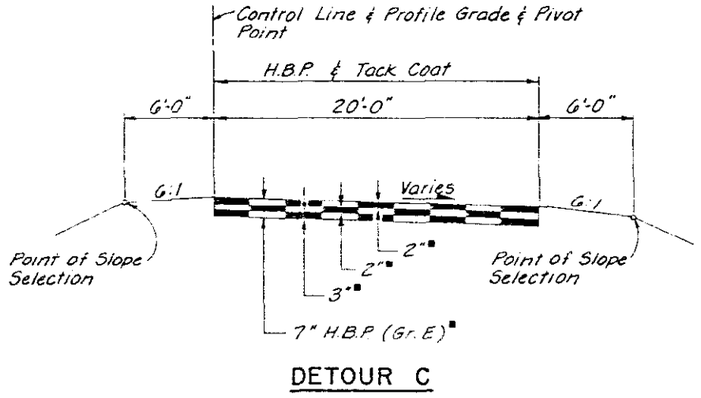


ON STRUCTURE F-16-EJ

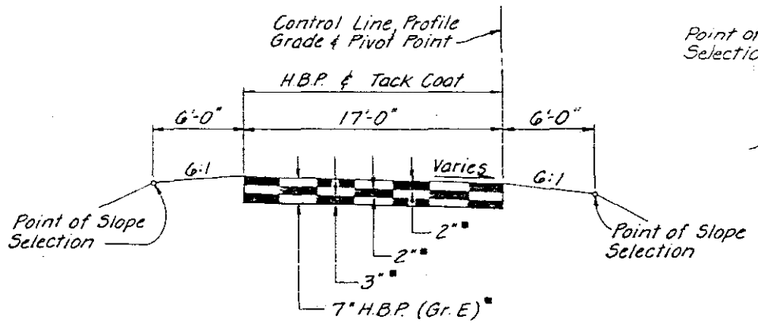


ON STRUCTURE F-16-DU

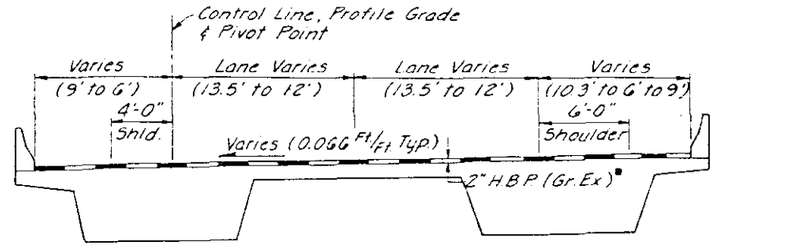
W.B. 6TH AVE. C.D. MEDIAN MODIFICATION



DETOUR C

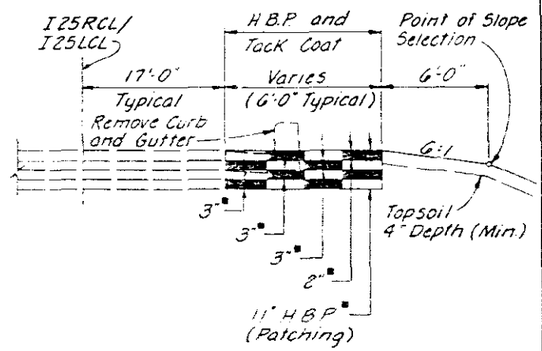


DETOUR D

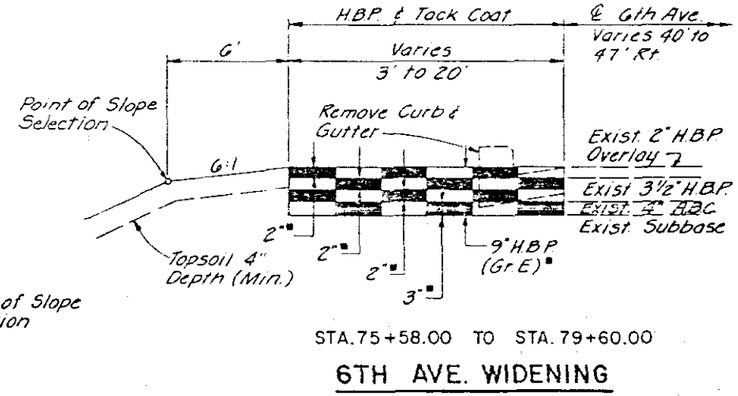


RAMP 'E'

STA. 602+78.57 TO STA. 616+56.62
(BRIDGE STRUCTURE)



I25 WIDENING



STA. 75+58.00 TO STA. 79+60.00

6TH AVE. WIDENING

* Removal to be paid for as "Removal of Portions of Present Structure."

** Sta. 60+00 to Sta. 71+50 (See Geometric Plan W. 6th Ave)

* ~~Approximate~~ Thickness

6TH AVE. & I25 WIDENING, RAMP 'E', DETOUR, AND C.D. MEDIAN MODIFICATION

TYPICAL SECTIONS

De Leuw Cather & Company — Denver, Co.

OF COLORADO
DEPARTMENT OF HIGHWAYS
ON OF HIGHWAYS
M. FORM NO. 126.
EB. 1984

AS CONSTRUCTED			
NO REVISIONS	REVISED	[illegible]	VOID

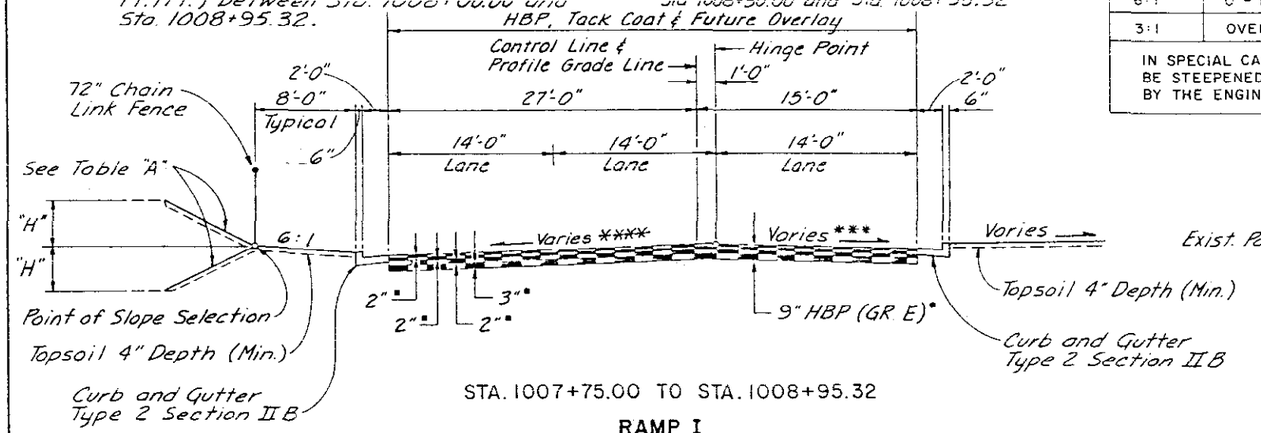
FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	9	242

*** Cross Slope Varies on Right side of Hinge Point from +0.020 Ft./Ft. to Match Existing 8th Ave. Grade (≈ -0.002 Ft./Ft.) between Sta. 1008+00.00 and Sta. 1008+95.32.

**** Cross Slope Varies on Left Side of Hinge Point from -0.01 Ft./Ft. to Match Existing 8th Ave. Grade (≈ -0.002 Ft./Ft.) Between Sta 1008+50.00 and Sta. 1008+95.32

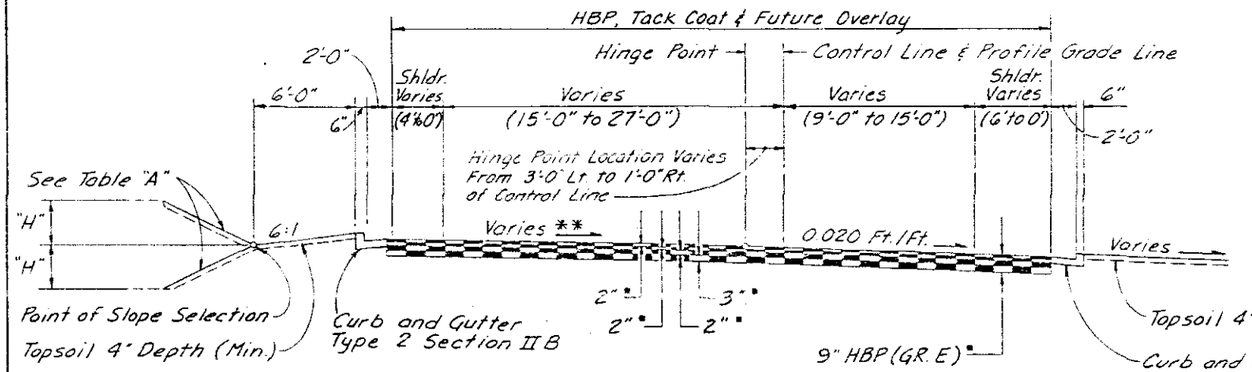
SLOPE SELECTION TABLE "A"		
SLOPE	"H" HEIGHT OF FILL	"H" HEIGHT OF CUT
6:1	0'-10'	0'-10'
3:1	OVER 10'	OVER 10'

IN SPECIAL CASES SLOPE MAY BE STEEPENED AS DIRECTED BY THE ENGINEER.



STA. 1007+75.00 TO STA. 1008+95.32

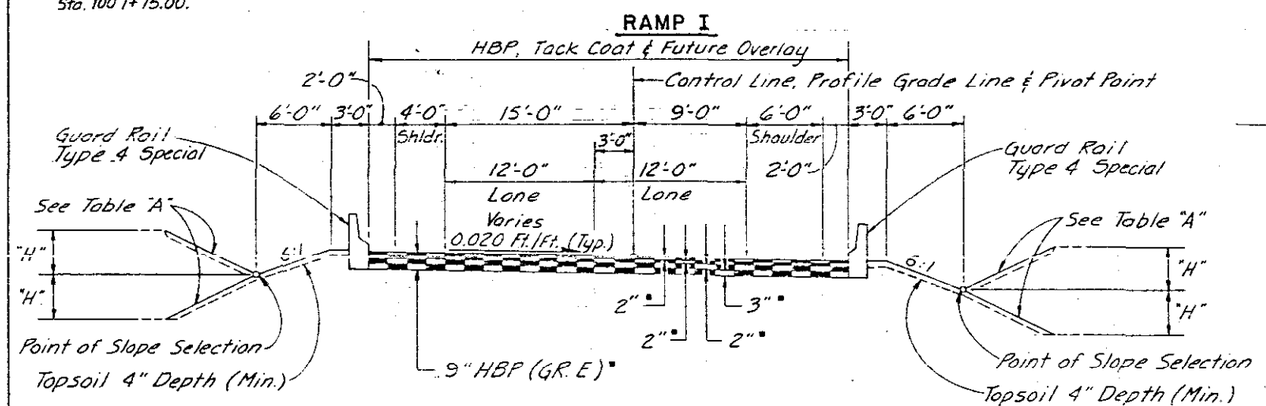
RAMP I



** Cross Slope Varies on left side of Hinge Point from +0.020 Ft./Ft. to -0.01 Ft./Ft. between Sta. 1006+75.00 and Sta. 1007+75.00.

STA. 1006+75.00 TO STA. 1007+75.00

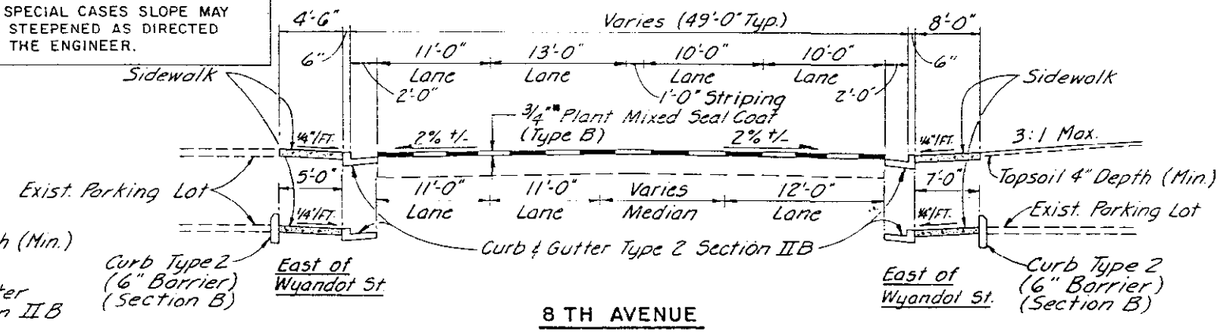
RAMP I



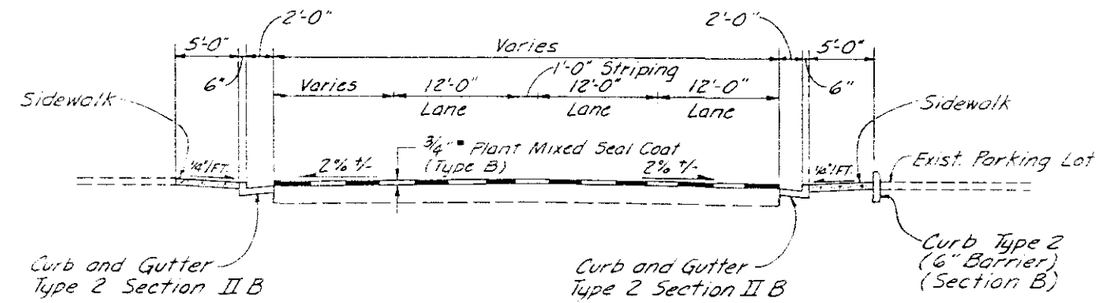
STA. 1004+00.00 TO STA. 1006+75.00

RAMP I

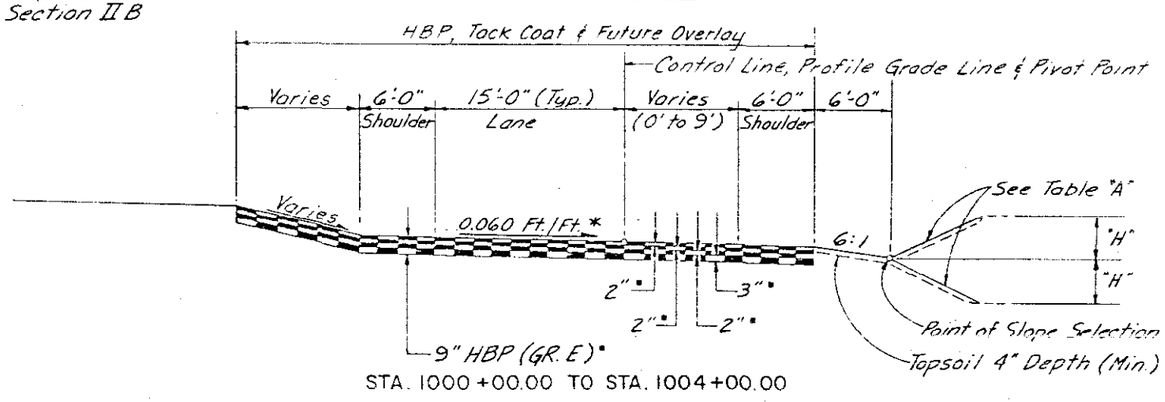
▪ ~~Approximate~~ Thickness



8 TH AVENUE



WYANDOT STREET



STA. 1000+00.00 TO STA. 1004+00.00

RAMP I

Note: For Transitions from Sta. 1000+00.00 to Sta. 1002+20.00 and Sta. 1002+90.00 to Sta. 1003+90.00 See Plan & Profile Ramp 'I'.

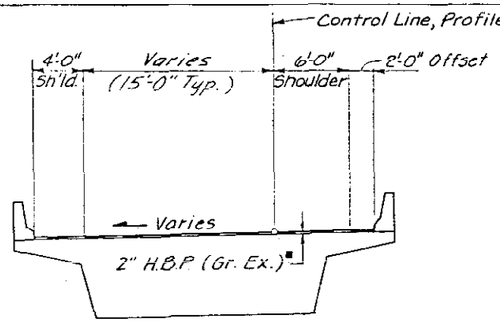
* 0.060 FT./FT. Typical, Cross Slope to Match Existing I25 at Sta. 1000+00.00 and Transition to 0.060 FT./FT at Sta. 1002+50.00

RAMP 'I', 8 TH AVENUE AND WYANDOT STREET TYPICAL SECTIONS

De Leuw Cather & Company Denver, Co.

AS CONSTRUCTED					
NO REVISIONS	REVISED 7-21-87	VOID			

FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	10	242



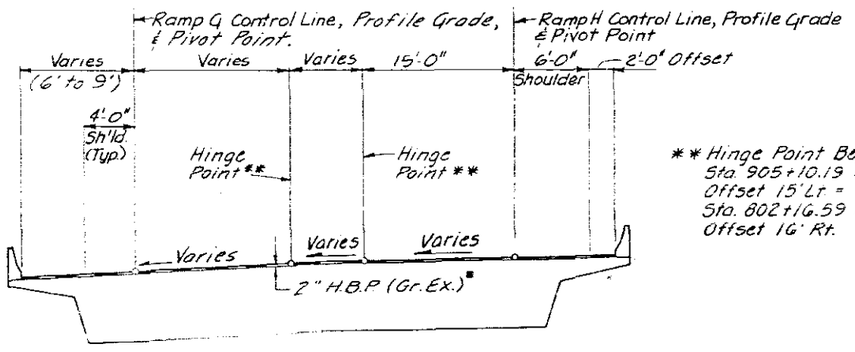
SLOPE SELECTION TABLE 'A'

SLOPE	"H" HEIGHT OF FILL	"H" HEIGHT OF CUT
6:1	0'-10'	0'-10'
3:1	OVER 10'	OVER 10'

IN SPECIAL CASES SLOPE MAY BE STEEPENED AS DIRECTED BY THE ENGINEER.

STA. 906+18.00 TO STA. 912+85.32

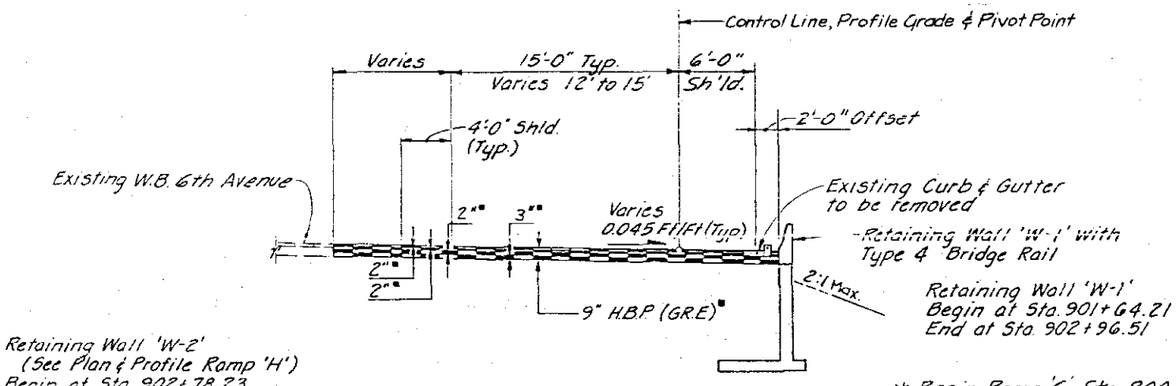
RAMP H



** Hinge Point Begins at Sta. 905+10.19 Ramp 'H' Offset 15' Lt. = Sta. 802+16.59 Ramp 'G' Offset 16' Rt.

STA. 903+10.00 TO STA. 906+18.00

RAMP H *

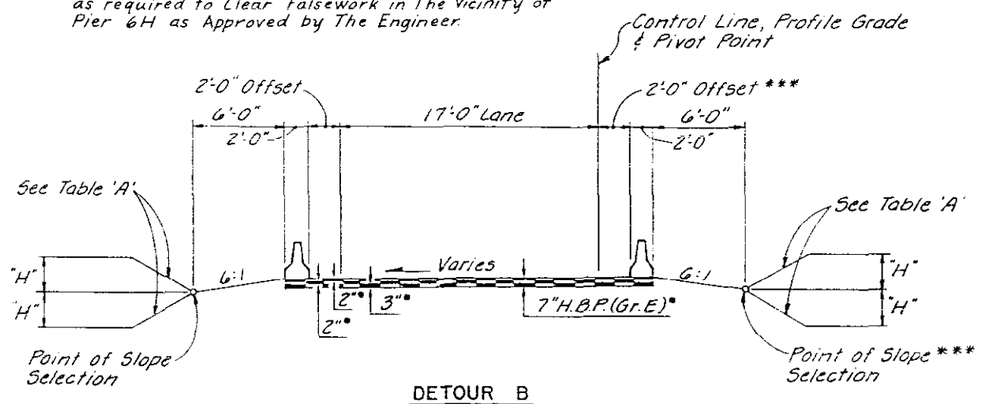


STA. 900+00.00 TO STA. 903+10.00

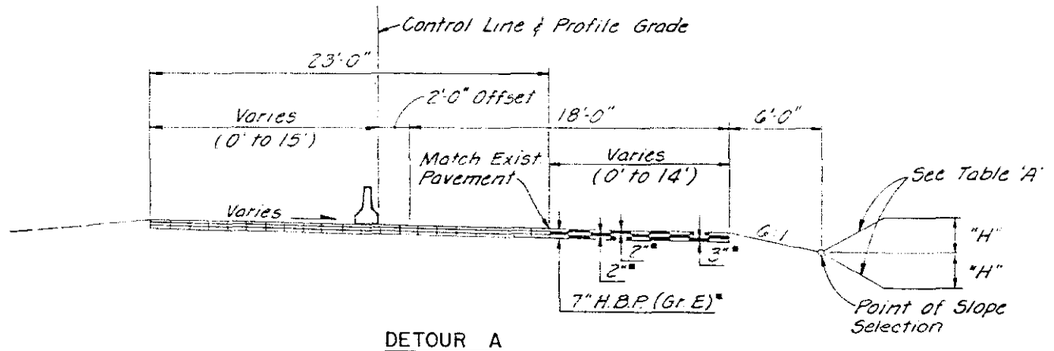
RAMP H *

* Begin Ramp 'G' Sta. 800+00.00 = Sta. 902+92.53 Ramp 'H' Offset 15.12' Lt.

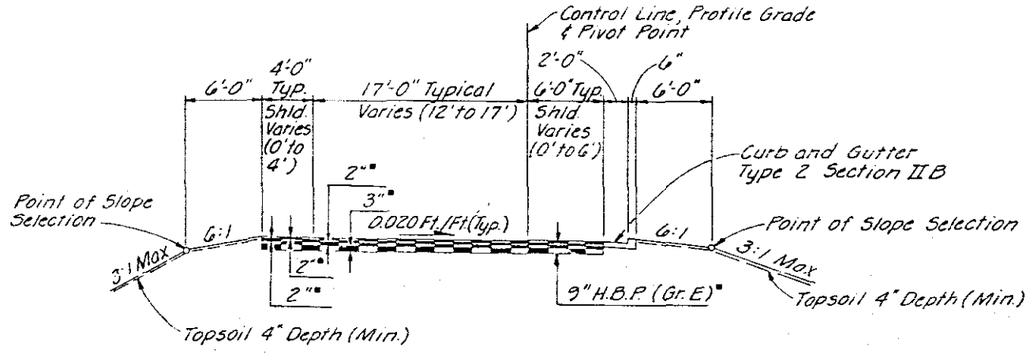
*** The Offset, Location of Barrier and Point of Slope Selection Right of the Control line May Be Adjusted as required to Clear Falsework in The Vicinity of Pier 6H as Approved by The Engineer.



DETOUR B



DETOUR A



OSAGE ON RAMP

* Approximate Thickness

RAMP 'H', DETOUR AND OSAGE ON RAMP TYPICAL SECTIONS

De Leuw, Cather & Company Denver, CO.

OF COLORADO
DEPARTMENT OF HIGHWAYS
OF HIGHWAYS:
FORM NO. 126-

	8-25-87	Quantity Revised	J.K.F.

SUMMARY OF APPROXIMATE QUANTITIES

AS CONSTRUCTED
NO REVISIONS ☐ REVISED ☒ VOID ☐

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	11	24

INDEX BOOK	INDEX PAGE	INDEX SHEET	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT		ROADWAY	AS CONST. ROADWAY	STR. NO. F-16-OG	AS CONST. F-16-OG	STR. NO. F-16-OK	AS CONST. F-16-OK	STR. NO. F-16-NO	AS CONST. F-16-NO	UTILITIES	AS CONST. UTILITIES	PROJECT TOTALS	TOTALS AS CONST.	DIFF. + / -	% PLAN
1	1		201	Clearing and Grubbing	LS.		1										1	1		
	2		202	Removal of Structures and Obstructions	LS.		1										1	1		
	3		202	Removal of Pipe	Lin Ft.		165										165	113		
	4		202	Removal of Barricade	Each		1										1	1		
	5		202	Removal of Delineator	Each		36										36	34		
	6		202	Removal of Sidewalk	Sq.Yd.		52										52	54		
	7		202	Removal of Gutter	Lin Ft.		2,075										2,075	1631		
	8		202	Removal of Curb and Gutter	Lin Ft.		10,590										10,590	10335		
	9		202	Removal of Asphalt Mat	Sq.Yd.		7,425										7,425	8696		
	10		202	Removal of Asphalt Mat (Planing)	Sq.Yd.		11,167										11,167	9143		
	11		202	Removal of Pavement Marking	Sq.Ft.		11,378										11,378	5625		
	12		202	Removal of Portions of Present Structure	LS.		1										1	1		
	13		202	Removal of Luminaire	Each		8										8	9		
	14		202	Removal of Overhead Sign Structure	Each		4										4	4		
	15		202	Removal of Ground Sign	Each		30										30	31		
	16		202	Removal of Sign Panel	Each		4										4	4		
	17		202	Removal of Traffic Signal Head	Each		12										12	12		
	18		202	Removal of Traffic Signal Pole	Each		4										4	6		
	19		202	Removal of Traffic Signal Controller and Cabinet	Each		1										1	1		
	21		202	Removal of Guard Rail Type 3	Lin. Ft.		565										565	566		
	21		202	Removal of Guard Rail Type 4	Lin.Ft.		230										230	400		
	22		202	Removal of Guard Rail Type 5	Lin.Ft.		730										730	734		
↓	23		202	Plug Structure	Each		12										12	12		
1	24		202	Plug Culvert	Each		7										7	8		
2	25		203	Embankment Material (Complete In Place)	Cu.Yd.		6,332	8326									6,332	8326		
	26		206	Structure Excavation	Cu.Yd.		1,031	1,340	138	138	⟨R⟩ .954	954	421	421			⟨R⟩ 2,544	2853		
	27		206	Structure Backfill (Class I)	Cu.Yd.		1,057	1,065			549	549					1,606	1634		
	28		206	Structure Backfill (Class 2)	Cu.Yd.		31	60	98	98	512	512	481	431			1122	1151		
	29		206	Filter Material (Class B)	Cu.Yd.		41	41			13	13					54	54		
	30		207	Topsoil (Haul)	Cu.Yd.		2,546	1949									2,546	1949		
	31		210	Reset Delineator	Each		19										19	19		
	32		210	Reset Ground Sign	Each		3										3	12		

OF COLORADO
DEPARTMENT OF HIGHWAYS
N OF HIGHWAYS:
FOR NO. 126:
B.

(R-1) 8-25-87, Changed Pay Item, J.K.K.

SUMMARY OF APPROXIMATE QUANTITIES

AS CONSTRUCTED		
NO REVISIONS ☐	REVISED ☐	VOID ☐

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	12	24

INDEX BOOK	INDEX PAGE	INDEX SHEET	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	ROADWAY	AS CONST. ROADWAY	STR. NO. F-16-OG	AS CONST. F-16-OG	STR. NO. F-16-OK	AS CONST. F-16-OK	STR. NO. F-16-NO	AS CONST. F-16-NO	UTILITIES	AS CONST. UTILITIES	PROJECT TOTALS	TOTALS AS CONST.	DIFF. + / -	% PLAN
2		33	210	Reset Sign Panel	Each	1	1									1	1		
↑		34	210	Reset Fence	Lin.Ft.	75	73									75	73		
		35	210	Reset Guard Rail Type 4	Lin.Ft.	1286	[illegible]									1286	[illegible]		
		36	210	Modify Inlet	Each	2	1									2	1		
		37	212	Seeding (Native) DOH 105	Acre	5	0									5	0		
		38	212	Seeding (lawn) DOH 105	Acre	2	0									2	0		
		39	212	Sod	Sq.Ft.	160,000	[illegible]									160,000	[illegible]		
		40	213	Mulching (Hydraulic) DOH 105	Acre	7	0									7	0		
		41	213	Erosion Bales DOH 105	Each	50	0									50	0		
		42	214	Purple Ash (Fraxinus Autumn Purple) (4 Inch Caliper) DOH 105	Each	11	0									11	0		
↓		43	215	Transplant Tree (3 to 6 Inch) DOH 105	Each	1	0									1	0		
2		44	215	Transplant Tree (Over 6 Inch)	Each	19	10									19	10		
3		45	403	Hot Bituminous Pavement (Patching) (Haul and Asphalt)	Ton	873	1730.01			~~2~~						875	1730.01		
↑		46	403	Hot Bituminous Pavement (Grading E) (Haul) CMO 102	Ton	4,448	0									4,448	0		
		47	403	Hot Bituminous Pavement (Grading EX) (Haul) CMO 102	Ton	1,314	0	725	0	168	0	224	0			2,431	0		
		48	410	Plant Mixed Seal Coat (Type B) (Haul)) CMO 102	Ton	1,956	0									1,956	0		
		49	411	Asphalt Cement (AC-10) (Fortified) CMO 102	Ton	328	0	41	0	10	0	13	0			392	0		
		50	411	Asphalt Cement (AC-20) (Rubberized) CMO 102	Ton	137	0									137	0		
		51	411	Asphalt Cement (Scrap Rubber) (Crack Filler)	Ton	1	1.57									1	1.57		
↓		52	411	Emulsified Asphalt (Slow-Setting)	Gal.	1,277	2550									1,277	2550		
3		53	412	Concrete Pavement (6 Inch)	Sq.Yd.	114	122									114	122		
(R-1) 4		54	502	Drive Steel Piling DOH 105	Lin.Ft.	120	0									120	0		
↑		55	502	Steel Piling (HP 10 X 42)	Lin.Ft.	860	784									860	784		
		56	502	Steel Piling (HP 14 X 89)	Lin.Ft.					1,068	768					1,068	768		
		57	503	Drilled Caisson (48 Inch)	Lin.Ft.		7			112	112	250	275			362	387		
		58	503	Drilled Caisson (60 Inch)	Lin.Ft.					77	79					77	79		
		59	503	Drilled Caisson (84 Inch)	Lin.Ft.			461	464							461	464		
		60	507	Concrete Slope and Ditch Paving (Reinforced)	Cu.Yd.	67	61									67	61		
		61	509	Structural Steel	LB.			2,054,330	2,054,330							2,054,330	2,054,330		
		62	509	Structural Steel (Galvanized)	LB.					2,610	2,610					2,610	2,610		
		63	512	Bearing Device (Type III)	Each			28	28	8	8	2	2			38	38		
		64	513	Bridge Drain (Special)	Each			7	7	2	2	2	2			11	11		
		65	513	Drain Pipe (3 Inch)	Lin.Ft.	13	13			7	7					20	20		
		66	515	Waterproofing (Membrane)	Sq.Yd.	164		6,600	6653	1,571	1474	2,074	2101			10,245	10392		
		67	518	Bridge Compression Joint Sealer	Lin.Ft.					18	18					18	18		
		68	518	Waterstop (6 Inch)	Lin.Ft.	13	16			33	29					46	45		
↓		69	518	Bridge Expansion Device (0-4 Inch)	Lin.Ft.					30	30					30	30		
4		70	518	Bridge Expansion Device (0-9 Inch)	Lin.Ft.			132	132	31	31	27	27			190	190		

E OF COLORADO
DEPARTMENT OF HIGHWAYS
ON OF HIGHWAYS:
FORM NO. 126:
EB

FINAL

SUMMARY OF APPROXIMATE QUANTITIES

AS CONSTRUCTED — NO REVISIONS ☐ REVISED ☐ VOID ☐

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	13	24

INDEX BOOK	INDEX PAGE	INDEX SHEET	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT		ROADWAY	AS CONST. ROADWAY	STR. NO. F-16-OG	AS CONST. F-16-OG	STR. NO. F-16-OK	AS CONST. F-16-OK	STR. NO. F-16-NO	AS CONST. F-16-NO	UTILITIES	AS CONST. UTILITIES	PROJECT TOTALS	TOTALS AS CONST.	DIFF. + / -	% PLAN
5		71	601	Concrete Class A (Bridge)	Cu.Yd.						542	542	127	127			669	669		
		72	601	Concrete Class A (Wall)	Cu.Yd.		173	174.65									173	174.65		
		73	601	Concrete Class D (Bridge)	Cu.Yd.				2,220	2,220			63	63			2,283	2283		
5		74	601	Concrete Class S (Bridge)	Cu.Yd.				443	443	1196	1,196	1,275	1,275			2,914	2914		
6		75	602	Reinforcing Steel	LB.						19,490	19,490	11,450	11,450			30,940	30940		
6		76	602	Reinforcing Steel (Epoxy Coated)	LB.		26,965	26,965	819,035	797,687	326,440	337,441	322,400	322,400			1,494,840	1,484,453		
7		77	604	Inlet Type C (5 Foot)	Each		1	2									1	2		
		78	604	Inlet Type C (10 Foot)	Each		1	1									1	1		
		79	604	Inlet Type 13 (5 Foot)	Each		2	2									2	2		
		80	604	Inlet Type R L 10 (5 Foot)	Each		2	2									2	2		
		81	604	Manhole Slab Base (10 Foot)	Each		2	2									2	2		
		82	604	15 Inch Reinforced Concrete Pipe Sewer	Lin.Ft.		38	126									38	126		
		83	604	24 Inch Reinforced Concrete Pipe Sewer	Lin.Ft.		65	65									65	65		
		84	604	12 Inch Corrugated Steel Pipe Sewer	Lin.Ft.		100	140									100	140		
		85	604	10 Inch Plastic Pipe Sewer (Polyvinyl Chloride)	Lin.Ft.		318	318									318	318		
		86	604	18 Inch Plastic Pipe Sewer (Polyvinyl Chloride)	Lin.Ft.		153	166									153	166		
		87	604	24 Inch Plastic Pipe Sewer (Polyvinyl Chloride)	Lin.Ft.		211	216									211	216		
		88	606	Guard Rail Type 3 (16-3 Post Spacing)	Lin.Ft.		587	463									587	463		
		89	606	Guard Rail Type 4	Lin.Ft.		395	412									395	412		
		90	606	Guard Rail Type 4 Special	Lin.Ft.		709	614									709	614		
		91	606	Guard Rail Type 4 (Precast-Portable)	Lin.Ft.		2,996	5093									2,996	5093		
		92	606	End Anchorage Type 3D	Each		1	1									1	1		
		93	606	End Anchorage Type 3E	Each		6	5									6	5		
		94	606	Bridge Rail Type 4	Lin.Ft.		150	150	2,818	2824	656	659	1,341	1345			4,965	4978		
		95	607	End Post (Chain Link)	Each		1	1									1	1		
		96	607	Corner and Line Brace Post (Chain Link)	Each		5	5									5	5		
		97	607	Fence Chain Link (72 Inch)	Lin.Ft.		125	125									125	125		
		98	608	Concrete Sidewalk	Sq.Yd.		564	470									564	470		
		99	608	Concrete Curb Ramp	Sq.Yd.		80	83									80	83		
		100	609	Curb Type 2 (Section B)	Lin.Ft.		268	264									268	264		
		101	609	Curb and Gutter Type 2 (Section I-B)	Lin.Ft.		45	355									45	355		
		102	609	Curb and Gutter Type 2 (Section II-B)	Lin.Ft.		2,254	2518									2,254	2518		
		103	610	Median Cover Material (Patterned Concrete)	Sq.Ft.		126	95									126	95		
7		104	612	Delineator (Type I)	Each		54	54									54	54		

STATE OF COLORADO
DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
FORM NO. 126
FEB. 1984

FINAL

SUMMARY OF APPROXIMATE QUANTITIES

AS CONSTRUCTED — NO REVISIONS ☐ REVISED ☒ VOID ☐

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	14	24

INDEX BOOK	INDEX PAGE	INDEX SHEET	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT		ROADWAY	AS CONST. ROADWAY	STR. NO. F-16-OG	AS CONST. F-16-OG	STR. NO. F-16-OK	AS CONST. F-16-OK	STR. NO. F-16-NO	AS CONST. F-16-NO	UTILITIES	AS CONST. UTILITIES	PROJECT TOTALS	TOTALS AS CONST.	DIFF. + / -	% PLAN
7		105	612	Delineator (Type II)	Each		10	10									10	10		
		106	612	Reflector (Median Barrier)	Each		76	166									76	166		
		107	613	¾ Inch Electrical Conduit	Lin.Ft.			105	146	80			42	39			188	224		
		108	613	2 Inch Electrical Conduit	Lin.Ft.		1,429		1,353		834		667				4,283	4,440		
		109	613	2 Inch Electrical Conduit (Jacked)	Lin.Ft.		105	150									105	150		
		110	613	Direct-Burial Cable	Lin.Ft.		490	635									490	635		
		111	613	Wiring	L.S.		1	1									1	1		
		112	613	Luminaire High Pressure Sodium (Wall Type) (16,000 Lumen)	Each		12	12									12	12		
		113	613	Interior Lighting (Concrete Box Girder)	Each						1	1	1	1			2	2		
7		114	613	Interior Lighting (Steel Box Girder)	Each				1	1							1	1		
8		115	614	Sign Panel (Class I)	Sq.Ft.		238	449									238	449		
		116	614	Sign Panel (Class II)	Sq.Ft.		277	276									277	276		
		117	614	Sign Panel (Class III)	Sq.Ft.		3,045	3045									3,045	3045		
		118	614	Timber Sign Post 4 X 4 Inch	Lin.Ft.		82	119									82	119		
		119	614	Timber Sign Post 6 X 6 Inch	Lin.Ft.		284	265									284	265		
		120	614	Steel Sign Post (S 3 X 5.7)	Lin.Ft.		40	40									40	40		
		121	614	Concrete Footing III-S (Drilled)	Each		2	2									2	2		
		122	614	Concrete Footing V (Spread)	Each		1	1									1	1		
		123	614	Concrete Footing II-S (Spread)	Each		3	3									3	3		
		124	614	Concrete Footing III-S (Spread)	Each		6	6									6	6		
		125	614	Mask Sign Legend	Each		2	1									2	1		
		126	614	Modification of Sign Legend	L.S.		1	1									1	1		
		127	614	Overpass Mounted Sign Bracket	Each		2	2									2	2		
		128	614	Sign Bridge Structure (60 to Less Than 65 Foot Frame)	Each		2	2									2	2		
		129	614	Sign Bridge Structure (70 to Less Than 75 Foot Frame)	Each		1	1									1	1		
		130	614	Sign Bridge Structure (95 to Less Than 100 Foot Frame)	Each		1	1									1	1		
		131	614	Sign Bridge Structure (100 to Less Than 105 Foot Frame)	Each		1	1									1	1		
		132	614	Sign Bridge Structure (105 to less than 110 Foot Frame)	Each		1	1									1	1		
8		133	614	Balanced Butterfly Structure	Each		1	1									1	1		

(P-1) 8-22-85 Changed Pay Item and Changed Order of Pay Items J.K.K.
E.I.A.

SUMMARY OF ~~APPROXIMATE~~ QUANTITIES

AS CONSTRUCTED — NO REVISIONS ☐ REVISED ☐ VOID ☐

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	15	24

INDEX BOOK	INDEX PAGE	SHEET NO.	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT		ROADWAY	AS CONST. ROADWAY	STR. NO. F-16-OG	AS CONST. F-16-OG	STR. NO. F-16-OK	AS CONST. F-16-OK	STR. NO. F-16-NO	AS CONST. F-16-NO	UTILITIES	AS CONST. UTILITIES	PROJECT TOTALS	TOTALS AS CONST.	DIFF. + / -	% PLAN
8 ↑		134	614	Cantilever Structure (25 to Less Than 30 Foot Frame)	Each		1	1									1	1		
		135	614	Pedestrian Signal Face (16)	Each		4	5									4	5		
		136	614	Traffic Signal Face (8-8-8)	Each		8	8									8	8		
		137	614	Traffic Signal Face (12-8-8)	Each		7	7									7	7		
		138	614	Traffic Signal Controller Cabinet DOH 105	Each		1	0									1	0		
		139	614	Coordination Unit	Each		1	1									1	1		
		140	614	Loop Detector Wire	Lin.Ft.		980	1108									980	1108		
		141	614	Traffic Signal Vehicle Detector Amplifier (Loop Type)	Each		5	5									5	5		
		142	614	Concrete Barrier (Temporary) DELETED BY 105	Lin.Ft.		1,672	0									1,672	0		
(P-1)		143	614	Glare Screen (Temporary)	Lin.Ft.		2,980	3020									2,980	3020		
		144	614	Traffic Signal-Light Pole Steel	Each		1	1									1	1		
		145	614	Traffic Signal-Light Pole Steel (1 Mast Arm)	Each		2	2									2	2		
		146	614	Traffic Signal-Light Pole Steel (2 Mast Arm)	Each		1	1									1	1		
(P-1)		147	614	Impact Attenuator (Sandwich System)	Each		1	1									1	1		
(P-1)	8 ↓	148	614	Traffic Signal Controller (Solid State) (Full-Actuated) (2 Phase) DOH 105	Each		1	0									1	0		
	9 ↑	149	618	Prestressing Steel Wire or Strand	M KFT						5,156	5,156	3,906	3,906			9,062	9062		
		150	618	Prestressing Steel Bar	M KFT				388	388							388	388		
		151	619	30 Inch Welded Steel Pipe (Jacked)	Lin.Ft.		153	166									153	166		
		152	619	36 Inch Welded Steel Pipe (Jacked)	Lin.Ft.		211	216									211	216		
		153	619	1 Inch Plastic Pipe DOH 105	Lin.Ft.		1,400	0									1,400	0		
		154	619	1½ Inch Plastic Pipe DOH 105	Lin.Ft.		1,055	0									1,055	0		
		155	619	2 Inch Plastic Pipe DOH 105	Lin.Ft.		455	0									455	0		
	9 ↓	156	619	3 Inch Plastic Pipe DOH 105	Lin.Ft.		775	0									775	0		

OF COLORADO
DEPARTMENT OF HIGHWAYS
...Y OF HIGHWAYS
. FORM NO. 126.
EB. 1984

FINAL (R-1) 8-25-87, Revised F/A Items J.K.K. and as-constructed

SUMMARY OF ~~APPROXIMATE~~ QUANTITIES

AS CONSTRUCTED — NO REVISIONS ☐ REVISED ☐ VOID ☐

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	16	24

INDEX BOOK	INDEX PAGE	INDEX SHEET	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT		ROADWAY	AS CONST. ROADWAY	STR. NO. F-16-OG	AS CONST. F-16-OG	STR. NO. F-16-OK	AS CONST. F-16-OK	STR. NO. F-16-NO	AS CONST. F-16-NO	UTILITIES	AS CONST. UTILITIES	PROJECT TOTALS	TOTALS AS CONST.	DIFF. + / -	% PLAN
9		157	620	Field Laboratory (Class 2) DELETED BY 105	Each		1	0									1	0		
		158	623	1 Inch Pop-up Rotary Sprinkler	Each		64	0									64	0		
		159	623	1 Inch Drain Valve DELETED BY DOH 105	Each		2	0									2	0		
		160	623	2 Inch Automatic Control Valve	Each		12	0									12	0		
		161	623	Control Wire 24 Volt	Lin.Ft.		3,580	0									3,580	0		
		162	623	12 Station Automatic Controller	Each		1	0									1	0		
		163	625	Construction Surveying	LS.		1	1									1	1		
			626	Mobilization	LS.		0.3	0.3	0.5	0.5	0.1	0.1	0.1	0.1			1	1		
		164	627	Pavement Marking Paint	Gal.		55	30									55	30		
		165	627	Thermoplastic Pavement Marking	Sq.Ft.		17,719	17636									17,719	17636		
9		166	627	Preformed Plastic Pavement Marking (60 Mils)	Sq.Ft.		3,263	2853									3,263	2848		
				FORCE ACCOUNT ITEMS																
			01	Minor Contract Revisions	F.A.		1	1									1 $100,000.00	1 $29047.95		
			02	On-The-Job Trainee	Each		6	7									1 $4,500.00	1 $5,427.22		
			03	Potholing For Utilities	F.A.										i		1 $10,000.00	1 $5921.94		
			04	Repair, Reset and Maintenance of Existing Irrigation System	F.A.		1										1 $50,000.00	1 $6496.97		
(R-1)			05	Railroad Flagging (Burlington Forces)	F.A.		1	1									1 $25,000.00	1 $25166.00		
(R-1)			~~06~~	~~Lowering Communications Line (Burlington Northern Forces)~~	~~F.A.~~										—		—			

(R-1) LOWERING COMMUNICATIONS LINE (BURLINGTON NORTHERN FORCES) WILL BE PAID FOR UNDER P.E. PROJECT IR 25 - 2(174)

STATE OF COLORADO
DEPARTMENT OF HIGHWAYS
DIV OF HIGHWAYS
FORM NO. 1133
REV. 1983

FINAL

SUMMARY OF ~~APPROXIMATE~~ QUANTITIES

ADDITIONAL QUANTITIES

AS CONSTRUCTED			
NO REVISIONS	REVISED 7-21-89	VOID	

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
VIII	COLO.	IR 25-2(101)	16 AX

Form Sheets 242

INDEX BOOK	INDEX PAGE	COMP REF NO SHEET	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	ROADWAY CMO or MCR Est. Quantity	AS CONST ROADWAY	PRICE REDUCTION DOLLAR VALUE	STR. NO. F-16-OG CMO or MCR Est. Quantity	AS CONST. F-16-OG	STR. NO. F-16-OK CMO or MCR Est. Quantity	AS CONST. F-16-OK	STR. NO. F-16-ND CMO or MCR Est. Quantity	AS CONST. F-16-NO	LIQUIDATED DAMAGE DOLLAR VALUE		PROJECT TOTALS PLAN	PROJECT TOTALS AS CONST.	DIFF +/-	% PLAN
10		167	604	18 INCH REINFORCED CONCRETE PIPE SEWER MCR 101	LIN. FT.	22	22										22	22		
		168	603	18 INCH REINFORCED CONCRETE END SECTION MCR 101	EACH	1	1										1	1		
		169	614	FLAGGING	HOUR	320	491										320	491		
		170	614	TRAFFIC CONTROL SUPERVISOR MCR 101	DAY	15	18.										15	18		
		171	614	UNIFORMED TRAFFIC CONTROL MCR 101	HOUR	86	86										86	86		
		172	503	DRILLED CAISSON 48 IN (5 FT TO 15 FT)	LIN. FT.	10	1										10	1		
		173	403	HBP GRADING "E" (H&A) CMO 102	TON	4448	4265.61										4448	4265.61		
		174	403	HBP GRADING EX (H&A) CMO 102	TON	1314	1415.13		725	717	168	168	224	224			2431	2524.13		
		175	410	PMS COAT TYPE B (H&A) (AC 10) CMO 102	TON	1956	1070.56										1956	1070.56		
		176	410	PMS COAT TYPE B (H&A) (AC 20R) CMO 102	TON	1073											1073	436.75		
		177	105	PRICE ADJUSTMENTS	L.S.			-$661.28									1	1		
		178	202	REMOVE FENCE MCR 101	LIN. FT	554	554										554	554		
		179	625	SURVEYING (ADDED)	HOUR	30	63										30	63		
		180	105	PRICE ACJUSTMENT COMPRESSIVE STRENGTH	L.S.			-$1090.77									1	1		
		181	105	PRICE ADJUSTMENT BRIDGE RAIL TYPE IV	L.S.			-$89.60									1	1		
		182	105	PRICE ADJUSTMENT BRIDGE RAIL TYPE IV	L.S.			-$364.00									1	1		
		183	604	INLET SPECIAL (5 FT) MCR 101	EACH	1	1										1	1		
		184	513	BRIDGE DRAIN REVISIONS MCR 101	L.S.	1	1										1	1		
		185	108	LIQUIDATED DAMAGES	DAY											-$30,720.00	0	206		
		186	105	PRICE ADJUSTMENT % AEA (SLOPE & DITCH PAY)	L.S.			-$193.36									1	1		
		187	105	PRICE ADJUSTMENT % AEA (SLOPE & DITCH PAY)	L.S.			-$99.68									1	1		
		188	105	PRICE ADJUSTMENT CLASS D SLUMP	L.S.			-$42.20									1	1		
		189	108	LIQUIDATED DAMAGES - TRAFFIC CONTROL	L.S.											-$150.00	1	1		
		190	604	36 INCH REINFORCED CONCRETE PIPE SEWER MCR 101	LIN. FT	23	23										23	23		
		191	603	36 INCH REINFORCED CONCRETE END SECTION MCR 101	EACH	1	1										1	1		
		192	202	REMOVAL OF END SECTION MCR 101	EACH	1	1										1	1		
		193	105	LIQUIDATED DAMAGES TRAFFIC CONTROL	L.S.											-$300.00	1	1		
		194	105	PRICE ADJUSTMENT AGGREGATE FAILURE	L.S.			-$109.69									1	1		
		195	105	PRICE ADJUSTMENT CLASS D SLUMP	LS			-$42.20									1	1		
		196	106	PRICE ADJUSTMENT CLASS D SLUMP	LS.			-$168.80									1	1		
		197	108	TRAFFIC CONTROL VIOLATION	LS.												1	1		
		198	601	SHORING MCR 101	L.S.											-$600.00	1	1		
		199	210	RESET TRAFFIC SIGNAL FACE MCR 101	EACH	8	8										8	8		
		200	614	INSTALL TRAFFIC SIGNAL CONTROLLER & CABINET MCR 101	EACH	1	1										1	1		
		201	614	SPAN WIRE POLE 12 INCH MCR 101	EACH	2	2										2	2		
		202	105	FOUGHT & CO. CLAIM	LS.													0		
		203	502	PILING CUTOFF 10X42	LIN FT	4	4										4	4		
		204	502	PILING CUTOFF 14X89	LIN FT	19	19										19	19		
		205	100	DRILLING OBSTRUCTION CLAIM CMO 107	LS.	1	1										1	1		
		206	509	DIAPHRAGMS AND SPLICES CMO 104	LS.	1	1										1	1		
		207	509	INTERIOR GIRDER PAINTING CMO 104	LS.			-13940.00	1	1							1	1		
		208	613	LOAD CENTER (CONCRETE) CMO 104	EACH						1	3	2	2			3	5		
		209	613	LOAD CENTER (STEEL) CMO 104	EACH				1	1							1	1		
10		210	614	TRAFFIC SIGNAL CONTROL CABINET (8) MCR 101	EACH	1	1										1	1		

FINAL

SUMMARY OF ~~APPROXIMATE~~ QUANTITIES

AS CONSTRUCTED	FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
NO REVISIONS ☐ REVISED 7/21/89 VOID ☐	VIII	COLO.	IR 25-2 (191)	16 BX

TOTAL SHEETS 242

INDEX BOOK	INDEX PAGE	Comp REF ~~SHEET~~	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	CMO or MCR Estimated ROADWAY Quantity	AS CONST ROADWAY	PRICE REDUCTION DOLLAR VALUE	CMO or MCR Est. Quantity STR NO. F-16-OG	AS CONST. F-16-OG	STR NO. F-16-OK	STR NO. F-16-NO	AS CONST. F-16-NO	PROJECT TOTALS PLAN	PROJECT TOTALS AS CONST.	DIFF. +/-	% PLAN
10		211	100	BEDROCK WATER CLAIM CMO 108	L.S.									1	1		
		212	613	LIGHTING CONTROL PANEL MCR 101-24	EA	1	1							1	1		
		213	602	RESTEEL CORRECTION MCR 101-25	L.S.				1	1				1	1		
		214	613	PULL BOX REINFORCEMENT MCR 101-26	L.S.	1	1							1	1		
		215	202	REMOVAL OF FOUNDATION MCR 101-27	EA.	1	1							1	1		
		216	202	REMOVAL OF SIGN FOOTING MCR 101-28	EA.	1	1							1	1		
		217	614	TRAFFIC SIGNAL FACE (12-12-8-3-12) MCR 101-29	EA	1	1							1	1		
		218	626	MOBILIZATION (ADDED) MCR 101-30	L.S.	1	1							1	1		
		219	601	ADD DRIP GROOVE MCR 101-31	LS				1	1				1	1		
		1160		Bearing Seat Elevation MCR 101-34	LS				1	1				1	1		
		1165		Relocate Wall Pack MCR 101-35	LS	1	1							1	1		
		1170		Surplus Steel CMO 109	LS									1	1		
		1175		Claim Settlement CMO 110	LS									1	1		

OF COLORADO
DEPARTMENT OF HIGHWAYS
ION OF HIGHWAYS
FORM NO. 126
FEB. 1984

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS ☐	REVISED ☐	VOID ☐	VIII	COLO.	IR 25-2(191)	17	24

SUMMARY OF EARTHWORK

INDEX BOOK	INDEX PAGE	INDEX SHEET	ITEM	PROJECT TOTALS ROADWAY CU. YD.	PROJECT TOTALS ROADWAY FINAL
			Embankment Material (C.I.P.)		
			Roadway (from Cross Sections)	5,929	6332
			From Structure Quantities	403	
			Detour A		1025
			Unsuitable Material		969
2		25-5	Total For Pay Quantities	6,332	8326
			(For Information Only)		
			Roadway Quantities Balance		
			Embankment Material X Factor		
			(6,332 X 1.15)	7,282	
			Total For Balance	7,282	
			Unclassified Excavation		
			Roadway (from Cross Sections)	1,078	
			From Structure Quantities	578	
			△ Borrow (Contractors Source)	5,626	
			Total For Balance	7,282	

△ Minimum R Value - 20 in the top two feet of Subgrade, and 5 below the top two feet, when tested by the Hveem Stabilometer.

TABULATION OF FENCE

STATION	SIDE	FENCE CHAIN LINK (72 INCH) LIN FT.	AS CONST.	CORNER AND LINE BRACE POST EACH	AS CONST.	END POST EACH	AS CONST.	REMARKS
1007+95	LT.					1	1	
1007+95 TO 1008+80	LT.	125	125	5	5			Lt. Side Ramp "I"
TOTALS		125	125	5	5	1	1	

TABULATION OF GUARD RAIL

STATION	SIDE	GUARD RAIL TYPE 3 ■ (6'-3" SPACING) LIN.FT.	AS CONST.	GUARD RAIL TYPE 4 SPECIAL LIN.FT.	AS CONST.	GUARD RAIL TYPE 4 (PRECAST-PORTABLE) LIN.FT.		GUARD RAIL TYPE 4 (STYLE CA) ✱ LIN.FT.	AS CONST.	GUARD RAIL TYPE 4 (STYLE CD) ✱ LIN.FT.	AS CONST.	REMARKS
67+00 TO 69+00	℄					200						6th Ave. ℄ Median
70+40 TO 71+30	LT.					90						
72+55 TO 74+25	LT.			170								Color to match Bridge Rail Type 4
74+25 TO 75+00	LT.	75										W/ 3E End Anchor
263+50 TO 264+50	LT.					100						
264+50 TO 265+25	LT.	75										W/ 3E End Anchor
275+00 TO 276+60	RT.									160		Against West Abut.
275+35 TO 276+95	LT.									160		Against East Abut.
276+80 TO 278+35	℄			155								I-25 Median
276+80 TO 278+50	℄			170								I-25 Median
277+00 TO 278+25	LT.	125										W/ 3E End Anchor
278+35 TO 279+10	℄							75				I-25 Median
304+50 TO 906+05 ▲	LT.					▲						Ramp 'G' Closure
999+25 to 1000+87	RT.	162										W/3E & 3D End Anchor
1003+65 TO 1004+40	LT.	75										W/ 3E End Anchor
1004+40 TO 1005+42	RT.			102								W/ 12' End Section
1004+90 TO 1005+65	LT.	75										W/ 3E End Anchor
1005+65 TO 1006+77	LT.			112								W/ 12' End Section
1500+00 TO 1502+00	LT.					214						Lt. Side Detour A
1600+25 TO 1605+90 ▲	RT.					▲						Rt. Side Detour B
1600+50 TO 1604+85	LT.					424						Detour A & B
61+00 TO 64+90	RT.					412						W/12' End Section
1901+15 TO 1902+55	LT.					140						Lt. Side Detour D
63+00 TO 67+00	LT.					412						W/12' End Section
273+00 TO 279+00	RT.					612						W/12' End Section
276+85 TO 280+77	LT.					392						W/12' End Section
TOTALS		587	463	709	614	2,996	5098	75	52	320	320	

✱ Guard Rail Type 4 (Style CD) and Guard Rail Type 4 (Style CA) will be paid for as Guard Rail Type 4.

■ Guard Rail Type 3 is to be Galvanized.

▲ For Location Information Only, Quantity to be obtained from Reset on this project.

OF COLORADO
DEPARTMENT OF HIGHWAYS
N OF HIGHWAYS:
FORM NO. 126
EB. 1984

AS CONSTRUCTED	FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS ☐ REVISED ☐ VOID ☐	VIII	COLO.	IR 25-2(191)	18	24

TABULATION OF CURB AND GUTTER

STATION	SIDE	CURB & GUTTER TYPE 2 (SECTION 1B)		CURB & GUTTER TYPE 2 (SECTION 11B)		CURB TYPE 2 (6" BARRIER) (SECTION 1B)						REMARKS
		LIN. FT.	AS CONST	LIN. FT.	AS CONST	LIN. FT.	AS CONST					
6TH AVE.												
65·22 TO 66·80	RT.			158								
74·25 TO 76·54	LT.			230								
76·54 TO 78·21	LT.			389								Rt. Side Osage
125												
253·35 TO 255·05	LT.			290								
RAMP 1												
1005·42 TO 1008·85	RT.			343								
1006·77 TO 1008·85	LT.			208								
8TH AVE.												
1805·35 TO 1806·70	LT.			140								
1805·42 TO 1806·58	RT.			116								
1806·75	LT.	45										Traffic Island
1807·25 TO 1808·50	LT.			230								Incl. Wyandot St.
1807·25 TO 1807·60	RT.					40						
1807·35 TO 1808·40	LT.					158						Incl. Wyandot St.
1807·40 TO 1808·90	RT.			150								
1808·25 TO 1808·95	RT.					70						
TOTALS		45	355	2,254	2518	268	264					

TABULATION OF SIDEWALK, DRIVEWAY, AND CURB RAMP

STATION	SIDE	CONCRETE SIDEWALK 4"		CONCRETE PAVEMENT 6" (DRIVEWAY)		CURB RAMP TYPE 3B (8' RAMP)*		REMARKS
		SQ. YD.	AS CONST	SQ. YD.	AS CONST	SQ. YD.	AS CONST	
1801·85	RT.					12		
1801·90 TO 1803·60	RT.	150						
1805·10 TO 1805·35	LT.	15						
1805·35 TO 1805·72	LT.			21				
1805·25 TO 1806·58	RT.	118						
1805·72 TO 1806·80	LT.	105						Incl. W. Side Wyandot
1806·57	LT.					12		NW Corner 8th & Wyandot
1806·66	RT.					12		SW Corner 8th & Wyandot
1806·80	LT.					8		Traffic Island
1807·25 TO 1808·80	LT.	111						Incl. E. Side Wyandot
1807·25	LT.			42				E. Side Wyandot
1807·41	LT.					12		NE Corner 8th & Wyandot
1807·34	RT.					12		SE Corner 8th & Wyandot
1807·40 TO 1807·53	RT.	12						
1807·53 TO 1807·81	RT.			22				
1807·81 TO 1807·91	RT.	8						
1807·91 TO 1808·28	RT.			29				
1808·28 TO 1808·86	RT.	45						
1808·95	RT.					12		
TOTALS		564	470	114	122	80	83	

* See Detail

OF COLORADO
E DEPARTMENT OF HIGHWAYS
ION OF HIGHWAYS
H. FORM NO. 1261
FEB. 1984

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS ☐	REVISED ☐	VOID ☐	VIII	COLO.	IR 25-2(191)	19	

TABULATION OF SURFACING QUANTITIES

STATION TO STATION	HOT BITUMINOUS PAVEMENT (HAUL) ~~TONS~~ (ASPHALT) TONS (GRADING E) BOTTOM LAYER 3"	FINAL	THIRD LAYER 3"	THIRD LAYER 2"	FINAL	SECOND LAYER 3"	SECOND LAYER 2"	FINAL	TOP LAYER 2"	FINAL	(GRADING EX) TOP LAYER 2"	TOP LAYER 3/4"	FINAL	PLANT MIXED SEAL COAT (TYPE B) (H-ASPH) TONS	FINAL	EMULSIFIED ASPHALT (SLOW-SETTING) GAL.	FINAL	ASPHALT CEMENT (AC-10) (F) TONS	FINAL	PLANT MIXED ~~ASPHALT~~ SEAL COAT TYPE B CEMENT (AC-20) (RUB) TONS	FINAL	REMARKS
RAMP 'E'																						
602+79 TO 616+57											*725*							*41*				*Structure F-16-OG*
RAMP 'H'																						
900+00 TO 903+10	*142*			*95*			*95*		*95*							*129*		*24*				
903+10 TO 906+18											*168*							*10*				*Structure F-16-OK*
908+18 TO 912+85											*224*							*13*				*Structure F-16-NO*
RAMP 'I'																						
1000+00 TO 1008+95	*616*			*411*			*411*		*411*							*560*		*105*				
OSAGE ON RAMP	*106*			*71*			*71*		*71*							*96*		*18*				
DETOUR A	*69*						*46*		*46*							*42*		*9*				
DETOUR B	*217*						*144*		*144*							*131*		*29*				
DETOUR C	*31*						*21*		*21*							*19*		*4*				
DETOUR D	*67*						*45*		*45*							*41*		*9*				
6TH AVE. WIDENING	*133*			*89*			*89*		*89*							*121*		*23*				
6TH AVE. LEVELING												*1,314*						*75*				*See Pavement Marking Plans*
I-25 WIDENING	*152*		*152*			*152*			*101*							*138*		*32*				
6TH AVE. OVERLAY														*1,254*						*88*		*See Pavement Marking Plans*
HBP (PATCHING) (H-ASPH)																						*875 Tons Estimated*
I-25 OVERLAY														*619*						*43*		*See Pavement Marking Plans*
8TH AVE. & WYANDOT ST.														*83*						*6*		*See 8th Ave. & Wyandot Intersection Plan*
ASPHALT CEMENT (SCRAP RUBBER) (CRACK FILLER)																						*1 Ton Estimated*
PROJECT SUB-TOTALS	*~~1,533~~*		*~~152~~*	*666*		*~~152~~*	*922*		*1,023*		*~~117~~*	*~~1,314~~*		*~~1,956~~*		*~~1,277~~*		*~~392~~*		*~~137~~*		
PROJECT TOTALS	*4,448* *4,265.61*										*2524.13* *2,431*			*~~1,956~~ 1970.58*		*~~1,277~~ 2550*		*~~392~~* ○		*~~137~~ 436.15*		

Stabilization is based on the following:

RAMP	18k EDLA
H	*162*
I	*135*

Regional Factor	*1.5*
Serviceability Index	*2.5*
R Value of Subgrade	*20*

Strength Coefficients :

Bituminous Pavement =	*0.44*
Aggregate Base Course =	*0.12*

TABULATION OF MEDIAN COVER MATERIAL

STATION	SIDE	MEDIAN COVER MATERIAL (PATTERNED CONCRETE) SQ. FT.	CU. YDS.	REMARKS
1806 + 80	*LT.*	*126*	*5*	*TRAFFIC ISLAND*
TOTALS		*126*	*5*	

OF COLORADO
DEPARTMENT OF HIGHWAYS
OF HIGHWAYS
FORM NO. 126
8.

TABULATION OF REMOVE, ADJUST, & RESET ITEMS

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS ☐	REVISED ☐	VOID ☐	VIII	COLO.	IR 25-2(191)	20	4

STATION	SIDE	*REMOVAL OF STRUCTURES AND OBSTRUCTIONS		REMOVAL OF PIPE	REMOVAL OF BARRICADE	REMOVAL OF SIDEWALK		REMOVAL OF GUTTER		REMOVAL OF CURB & GUTTER		REMOVAL OF ASPHALT MAT	REMOVAL OF ASPHALT MAT (PLANING)	*REMOVAL OF PORTIONS OF PRESENT STRUCTURE		PLUG STRUCTURE	REMOVAL OF GUARD RAIL TYPE 4	REMOVAL OF GUARD RAIL TYPE 5	REMOVAL OF GUARD RAIL TYPE 3	RESET GUARD RAIL TYPE 4	RESET FENCE	MODIFY INLET		PLUG CULVERT	REMARKS
		L.S.		LIN. FT.	EACH	SQ. YD.		LIN. FT.		LIN. FT.		SQ. YD.	SQ. YD.	L.S.		EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH		EACH	
6TH AVENUE																									
57+70	LT.															1									Inlet
57+75 TO 61+50	LT.									890															C.D. Median
57+75 TO 61+50	LT.											275													C.D. Median
60+15	LT.															1									Inlet
61+50 TO 63+40	LT.													1											C.D. Median
62+70	LT./RT.												6,400												Structure F-16-DU
63+35 TO 69+00	℄																		565						℄ Median
63+35 TO 69+00	℄									1,130															℄ Median
63+35 TO 69+00	℄											188													℄ Median
63+40 TO 69+00	LT.									1,680															C.D. Median
63+40 TO 69+00	LT.											871													C.D. Median
65+22 TO 67+25	RT.							265																	Rt. Side Exist. Ramp
65+60 TO 67+25	RT.									355															Rt. Side Exist. Ramp
66+25	RT.											2,071													Exist. E to N Ramp
66+50 TO 67+15	RT.									125															Rt. Side Exist. Ramp
▲ 67+60	RT.																				230				Lt. Side Exist. Ramp
69+00 TO 70+50	LT.													1											C.D. Median
69+75	LT./RT.												4,767												Structure F-16-EJ
70+30 TO 75+60	LT.									530															Rt. Side W.B. 6th
70+50 TO 75+05	LT.											556													C.D. Median
70+50 TO 75+05	LT.									1,010															C.D. Median
75+50	LT.	1																							Inlet
75+60 TO 78+21	LT.									460															Rt. Side Osage Ramp
75+60 TO 78+00	LT.									340															Lt. Side Osage Ramp
75+60 TO 79+60	LT.									515															Rt. Side W.B. 6th
76+10	LT.															1									Inlet
RAMPS E & H																									
▲ 600+00 TO 602+75	RT.																				260				
▲ 616+60	RT.																				70				
903+75	RT.																					75			
SHEET TOTAL		1	1					265		7,035		3,961	11,167	1		3			565	560	75				

* FOR INFORMATION ONLY

▲ RESET ON PROJECT SITE OR ON STATE VEHICLES, AS DIRECTED BY THE ENGINEER.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
FORM NO. 126
FEB.

TABULATION OF REMOVE, ADJUST, & RESET ITEMS (CONTINUED)

AS CONSTRUCTED					
NO REVISIONS ☐	REVISED ☒	VOID ☐			

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	21	

STATION	SIDE	*REMOVAL OF STRUCTURES AND OBSTRUCTIONS	REMOVAL OF PIPE	REMOVAL OF BARRICADE	REMOVAL OF SIDEWALK	REMOVAL OF GUTTER	REMOVAL OF CURB & GUTTER	REMOVAL OF ASPHALT MAT	REMOVAL OF ASPHALT MAT (PLANING)	*REMOVAL OF PORTIONS OF PRESENT STRUCTURE	PLUG STRUCTURE	REMOVAL OF GUARD RAIL TYPE 4	REMOVAL OF GUARD RAIL TYPE 5	REMOVAL OF GUARD RAIL TYPE 3	RESET GUARD RAIL TYPE 4	RESET FENCE	MODIFY INLET	PLUG CULVERT	REMARKS
		L.S.	LIN. FT.	EACH	SQ. YD.	LIN. FT.	LIN. FT.	SQ. YD.	SQ. YD.	L.S.	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	
8TH AVENUE																			
1803+25	RT.																1		Adjust Grate
1805+36 TO 1806+68	LT.						155												
1805+43 TO 1806+20	RT.						80												
1805+52 TO 1806+10	LT.				20														
1806+15	RT.										1								Inlet
1806+40	RT.			1															
1806+55	LT.										1								Inlet
1806+60	RT.										1								Inlet
1806+70	LT.																	1	15" Storm Sewer
1806+72 TO 1808+90	RT.						200												
1807+15	LT.						100												Traffic Island
1807+15	LT.							42											Traffic Island
1807+85 TO 1808+80	LT.				32														
1807+25 TO 1808+45	LT.						140												
1807+25	LT.					75													
1807+50	LT.	1																	Inlet
I-25																			
253+35 TO 254+25	LT.						240												Traffic Island
253+35 TO 254+25	LT.							310											Traffic Island
253+48	LT.	1																	Inlet
254+00	LT.						95												Traffic Island
254+00	LT.							22											Traffic Island
254+20 TO 255+05	LT.						150												
254+40	LT.							245											Existing Exit Ramp
263+00 TO 269+30	LT.												650						
■ 277+50	RT.														564				Inside Loop Ramp
267+00 TO 271+50	LT.					550													Rt. Side W. to N. Ramp
267+15 TO 273+90	LT.						825												
270+60	LT.										1								Inlet
SHEET TOTAL		1		1	52	625	1,985	619			4		650		564		1	1	

*FOR INFORMATION ONLY

■ See Tabulation of Guard Rail for Location of Reset.

OF COLORADO
DEPARTMENT OF HIGHWAYS
ON OF HIGHWAYS:
FORM NO. 1261
EB. 1984

TABULATION OF REMOVE, ADJUST, & RESET ITEMS (CONTINUED)

AS CONSTRUCTED — NO REVISIONS ☐ REVISED ☐ VOID ☐

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	22	

STATION	SIDE	*REMOVAL OF STRUCTURES AND OBSTRUCTIONS		REMOVAL OF PIPE	REMOVAL OF BARRICADE	REMOVAL OF SIDEWALK		REMOVAL OF GUTTER		REMOVAL OF CURB & GUTTER		REMOVAL OF ASPHALT MAT	REMOVAL OF ASPHALT MAT (PLANING)	*REMOVAL OF PORTIONS OF PRESENT STRUCTURE		PLUG STRUCTURE	REMOVAL OF GUARD RAIL TYPE 4	REMOVAL OF GUARD RAIL TYPE 5	REMOVAL OF GUARD RAIL TYPE 3	RESET GUARD RAIL TYPE 4	RESET FENCE	MODIFY INLET		PLUG CULVERT	REMARKS
		L.S.		LIN. FT.	EACH	SQ. YD.		LIN. FT.		LIN. FT.		SQ. YD.	SQ. YD.	L.S.		EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH		EACH	
I-25 (CONT.)																									
271+10	LT.															1									Inlet
271+15 TO 274+80	LT.							425																	Lt. Side W. to N. Ramp
273+00 TO 63+75	LT.							760																	Rt. Side N. to W. Ramp
273+00 TO 280+75	LT.									765															Includes C & G under 6th Ave. Structure
273+10 TO 276+60	RT.									355															Includes C & G under 6th Ave. Structure
273+50	LT.	1																							Inlet
273+60	LT.																					1			Install Manhole Ring and Cover
275+00 TO 276+60	RT.											90													Raised Shoulder
275+35 TO 276+95	LT.											90													Raised Shoulder
276+80 TO 279+10	℄																230								
276+95 TO 277+75	LT.																	80							
277+00	RT.																							1	24" Storm Sewer
277+35	℄	1																							Inlet
277+35	℄																							2	24" Storm Sewer
277+40	LT.															1									Inlet
277+43	℄																							1	18" Storm Sewer
278+23	℄																							1	18" Storm Sewer
280+90 TO 285+00	LT.									450															
281+00	LT.															1									Inlet
DETOURS																									
1501+20	RT.	1																							Inlet
1501+20	RT.			60																					15" Storm Sewer
1600+00 TO 1608+66	RT.											1,740													Portion of Existing Ramp to Rt. of Detour B
1600+65	RT.																							1	15" Storm Sewer
1600+65	RT.															1									Inlet
1604+40	RT.															1									Inlet
■ 1605+35 TO 1607+15	RT.																			162					Rt. Side Exist. Ramp
1606+35 TO 1607+50	RT.			105																					15" Storm Sewer
1607+50	RT.	1																							Inlet
1900+00 TO 267+00	RT.											925													Portion of Detour B to Rt. of Detour D
SHEET TOTAL		~~1~~		~~165~~				~~1,185~~		~~1,570~~		~~2,845~~	9143			~~5~~	~~230~~	~~80~~	562	~~162~~		~~1~~		~~4~~	
TOTALS		1		~~116~~165	1	82 52		1631 ~~2,075~~		10305 ~~10,590~~		8696 ~~7,425~~	~~11,167~~	1		12	~~230~~ 400	~~730~~ 734	~~565~~	~~1,286~~ 5345	~~75~~ 78	1 ~~2~~		8 ~~5~~	

* FOR INFORMATION ONLY

■ SEE TABULATION OF GUARD RAIL FOR LOCATION OF RESET.

OF COLORADO
DEPARTMENT OF HIGHWAYS
ON OF HIGHWAYS
FORM NO. 126
EB. 1984

TABULATION OF STORM AND SANITARY SEWER SYSTEM

AS CONSTRUCTED
NO REVISIONS ☐ REVISED ☐ VOID ☐

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	23	24

INDEX BOOK	INDEX PAGE	INDEX SHEET	NOTE NO.	LOCATION	INLET - EACH: TYPE R L (PAY) 5	INLET - EACH: TYPE R L (PAY) 10	INLET - EACH: TYPE R H (PAY) 5	INLET - EACH: TYPE C H (PAY) 5	INLET - EACH: TYPE C H (PAY) 10	INLET - EACH: TYPE 13 H (PAY) 5	MANHOLE - EACH: SLAB BASE H (PAY) 10	MANHOLE - EACH: BOX BASE H (PAY) 10	MANHOLE - EACH: SPECIAL H (PAY) 10	H (MEASURED) ▲
			607	607+66.00 25.00' LT.				1						4'-6"
			608	607+72.00 93.00' LT.							1			5'-1"
			278 ××	278+48.00 125 ℄					1					7'-0"
			75 ××	75+46.00 66.00' LT.		1								3'-0"
			254 ××	253+48.00 30.40' LT.		1								3'-9"
			1806	1806+45.00 43.00' LT.						1				2'-6"
			1807 ××	1807+47.00 37.00' LT.						1				2'-2"
			1808	1807+80 29.00' Rt			1							2'-3"
			901	900+91.43 51.22' RT.									1	9'-1"
			1504	1504+90										
			69	64+00										
				TOTAL		2	2+1			2	2			

PIPE SEWER: LINE FROM LOWER	LINE TO UPPER	REINFORCED CONCRETE PIPE LINEAR FEET 15"	24"	30"	36"	42"	12"□	WELDED STEEL PIPE (JACKED) LINEAR FEET 30"	36"	18"♦	24"♦	10"♦	"H" PIPE COVER FEET	STRUCTURE EXCAVATION CUBIC YARD	STRUCTURE BACKFILL (CLASS 1) CUBIC YARD	STRUCTURE BACKFILL (CLASS 2) CUBIC YARD	UNCLASSIFIED EXCAVATION EMB.	REMARKS
607 5199.39	× 5200.44								21~~1~~		21~~1~~		4.5	0	0	0	0	× Connect to exist. manhole (Lt.) ●
608 5197.85	607 5198.50		65										3.67	71′	9′	23′	28	
607 5198.80	278 5202.50							1~~0~~0 ~~153~~		1~~5~~5 ~~153~~			5.0	0	0	0	0	×× Connect to exist. 18" culvert. ●
								-										×× Connect to exist. 15" culvert. ●
×	254 5196.30	10′											2.5	5′	1′	2′	1	× Connect to exist. 15" culvert(Lt.) with concrete collar. ●△(see detail)
× 5196.50	1806 5197.00	~~28~~6											10	~~3~~	~~1~~	~~1~~	0	× Connect to exist. manhole (Rt.). ●
																		×× Connect to exist. 10" culvert. ●
× 5196.00	1808 5196.60	110												51	11	30		× Connect to exist. inlet
× 5195.50	901 5196.39												279	8.5	409′	86′	0	307 × Connect to exist. manhole (Lt.) ●
901 5196.59	× 5196.70												39	13.5	80′	11′	0	67 × Connect to exist. manhole (Rt.) ●
× ×	× ×							40 100										14~~0~~ × ~~100~~ CSPS required for detour drainage to be set in field as necessary to drain
×	×					22								10	3	6		18" Reinforced Concrete End Section × Connect to existing 18" culvert and set in field as necessary to drain
×	×					23		~~140~~	~~166~~	~~216~~	~~166~~	~~216~~		24	5	12		36" Reinforced Concrete End Section × Connect to existing 36" culvert and set in field as necessary to drain
		~~238~~	65		22	23		~~140~~ 100	~~166~~ 153	~~216~~ 21	~~166~~ 153	~~216~~ 21	318		~~578~~ 653	~~109~~ 127	~~31~~ 74	403

▲ Elevation approximate only, actual elevation to be determined during construction.
● Cost of connecting proposed structures to existing structures to be included in the work.
■ Inlet to be set as shown on detail.
♦ Plastic Pipe Sewer (Polyvinyl Chloride).
△ Cost of concrete collar to be included in the pipe.
□ Corrugated Steel Pipe Sewer

OF COLORADO
DEPARTMENT OF HIGHWAYS
ION OF HIGHWAYS
M. FORM NO. 126
FEB., 1964

AS CONSTRUCTED				
NO REVISIONS 7-27-84	REVISED		VOID	

FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	24	24

LEGEND

- NEW DETOURS UNDER CONSTRUCTION
- DETOURS BEING UTILIZED
- NEW CONSTRUCTION
- NEW CONSTRUCTION ALREADY IN PLACE

8th AVE.
7th AVE.
6th AVE.
5th. AVE.
WYANDOT ST.
VALLEJO ST.
RAMPS 'E' & 'H' ENTRANCE
RIVER SOUTH PLATTE
CANOSA CT.
BRYANT ST.
ALCOTT ST.
OSAGE ST.
FEDERAL BLVD.
RAMP 'C'
RAMP 'F'
I-25
RARITAN WY.
QUIVAS ST.

CONSTRUCTION
STAGING PLAN
EXISTING CONDITIONS
6th Ave./ I 25

NOT TO SCALE

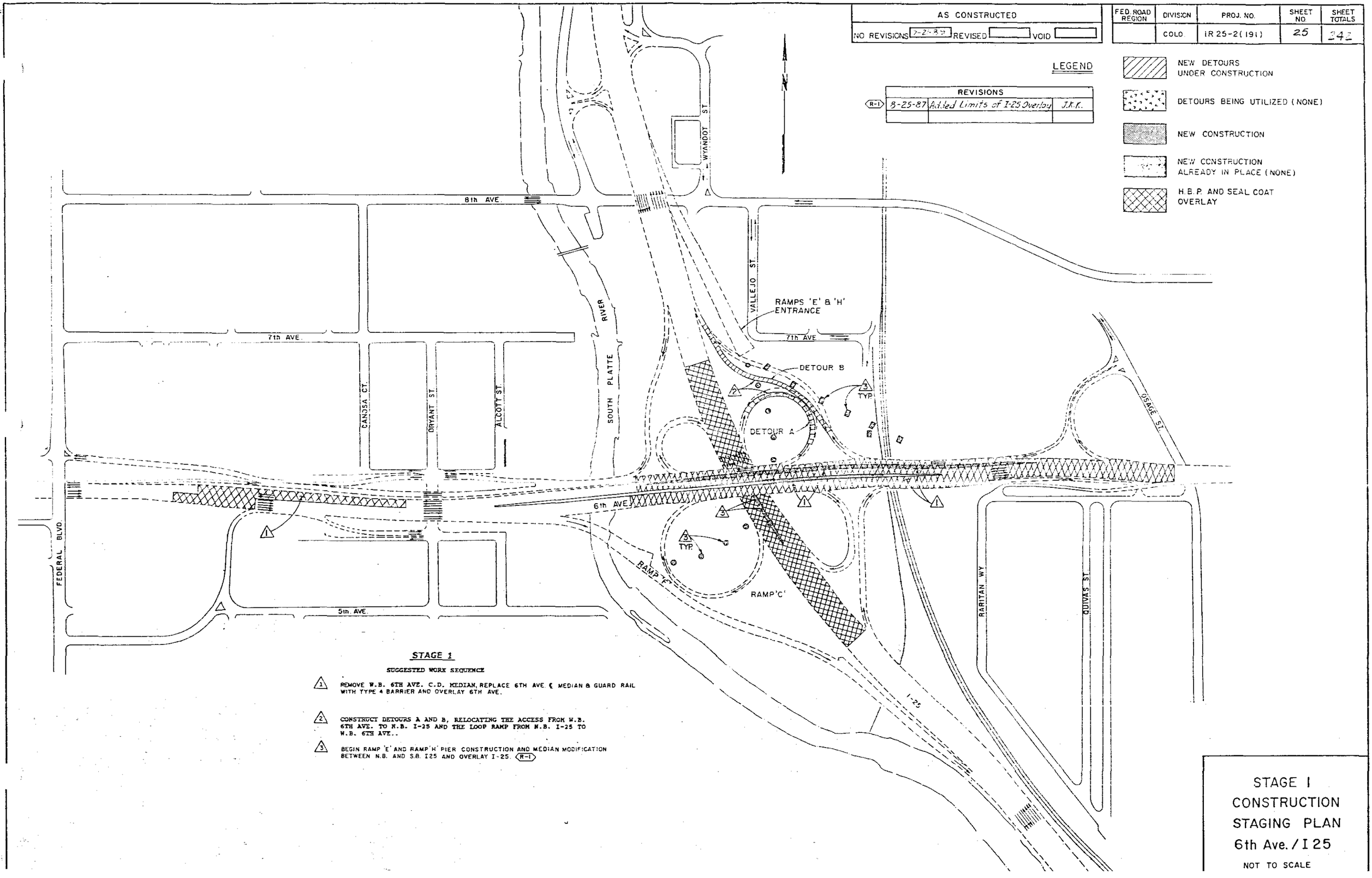
AS CONSTRUCTED				
NO REVISIONS 7-27-88	REVISED	VOID		

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
	COLO.	IR 25-2(191)	25	242

LEGEND

REVISIONS		
R-1 8-25-87	Added Limits of I-25 Overlay	J.K.K.

- NEW DETOURS UNDER CONSTRUCTION
- DETOURS BEING UTILIZED (NONE)
- NEW CONSTRUCTION
- NEW CONSTRUCTION ALREADY IN PLACE (NONE)
- H.B.P. AND SEAL COAT OVERLAY



STAGE 1

SUGGESTED WORK SEQUENCE

1. REMOVE W.B. 6TH AVE. C.D. MEDIAN, REPLACE 6TH AVE. & MEDIAN & GUARD RAIL WITH TYPE 4 BARRIER AND OVERLAY 6TH AVE.
2. CONSTRUCT DETOURS A AND B, RELOCATING THE ACCESS FROM W.B. 6TH AVE. TO N.B. I-25 AND THE LOOP RAMP FROM N.B. I-25 TO W.B. 6TH AVE..
3. BEGIN RAMP 'E' AND RAMP 'H' PIER CONSTRUCTION AND MEDIAN MODIFICATION BETWEEN N.B. AND S.B. I25 AND OVERLAY I-25. (R-1)

STAGE 1 CONSTRUCTION STAGING PLAN 6th Ave. / I 25

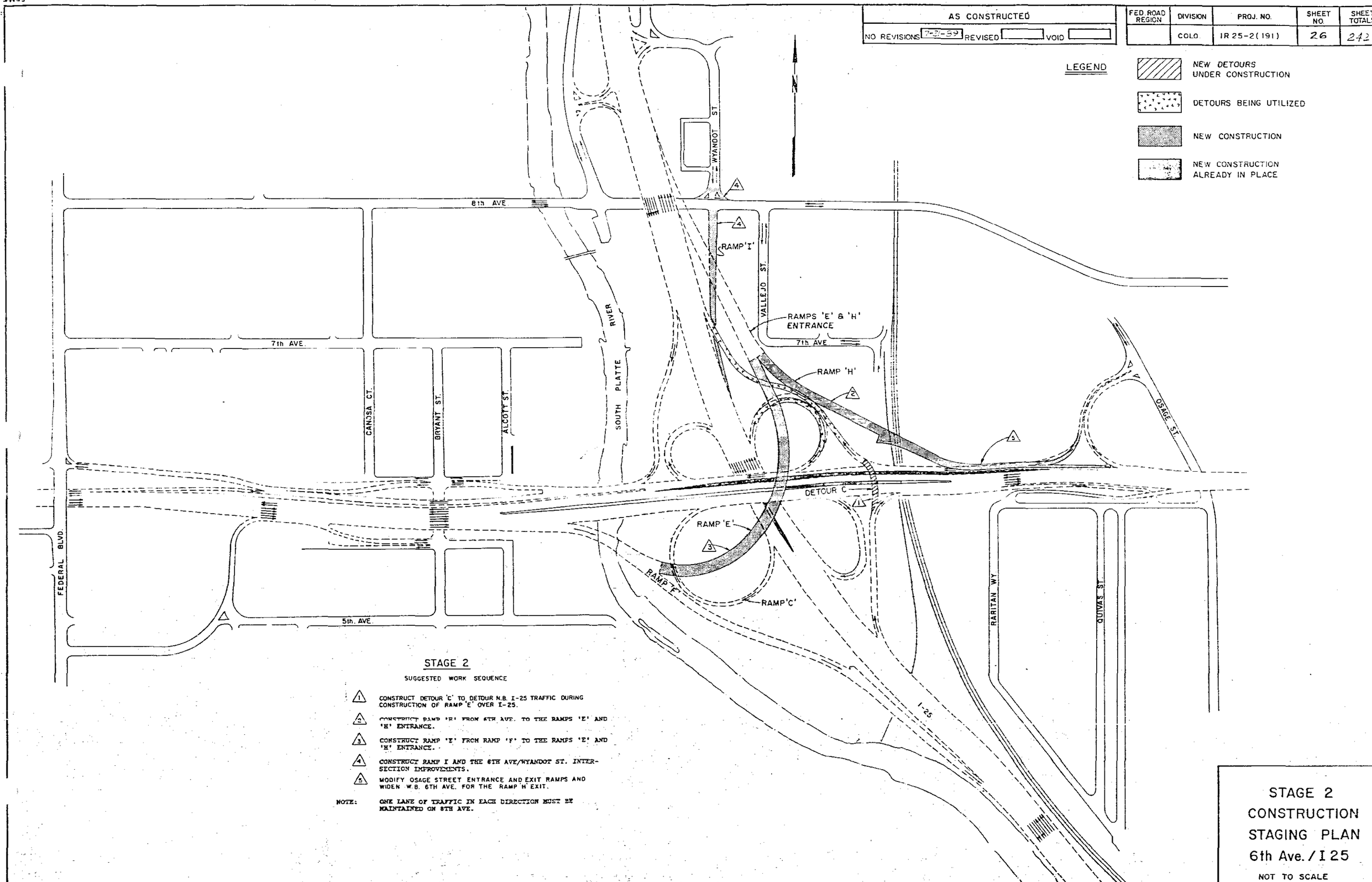
NOT TO SCALE

AS CONSTRUCTED					
NO REVISIONS 7-31-89	REVISED	VOID			

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
	COLO.	IR 25-2(191)	26	242

LEGEND

- NEW DETOURS UNDER CONSTRUCTION
- DETOURS BEING UTILIZED
- NEW CONSTRUCTION
- NEW CONSTRUCTION ALREADY IN PLACE



STAGE 2

SUGGESTED WORK SEQUENCE

1. CONSTRUCT DETOUR 'C' TO DETOUR N.B. I-25 TRAFFIC DURING CONSTRUCTION OF RAMP 'E' OVER I-25.
2. CONSTRUCT RAMP 'H' FROM 6TH AVE. TO THE RAMPS 'E' AND 'H' ENTRANCE.
3. CONSTRUCT RAMP 'E' FROM RAMP 'F' TO THE RAMPS 'E' AND 'H' ENTRANCE.
4. CONSTRUCT RAMP I AND THE 6TH AVE/WYANDOT ST. INTERSECTION IMPROVEMENTS.
5. MODIFY OSAGE STREET ENTRANCE AND EXIT RAMPS AND WIDEN W.B. 6TH AVE. FOR THE RAMP 'H' EXIT.

NOTE: ONE LANE OF TRAFFIC IN EACH DIRECTION MUST BE MAINTAINED ON 6TH AVE.

STAGE 2 CONSTRUCTION STAGING PLAN 6th Ave. / I 25

NOT TO SCALE

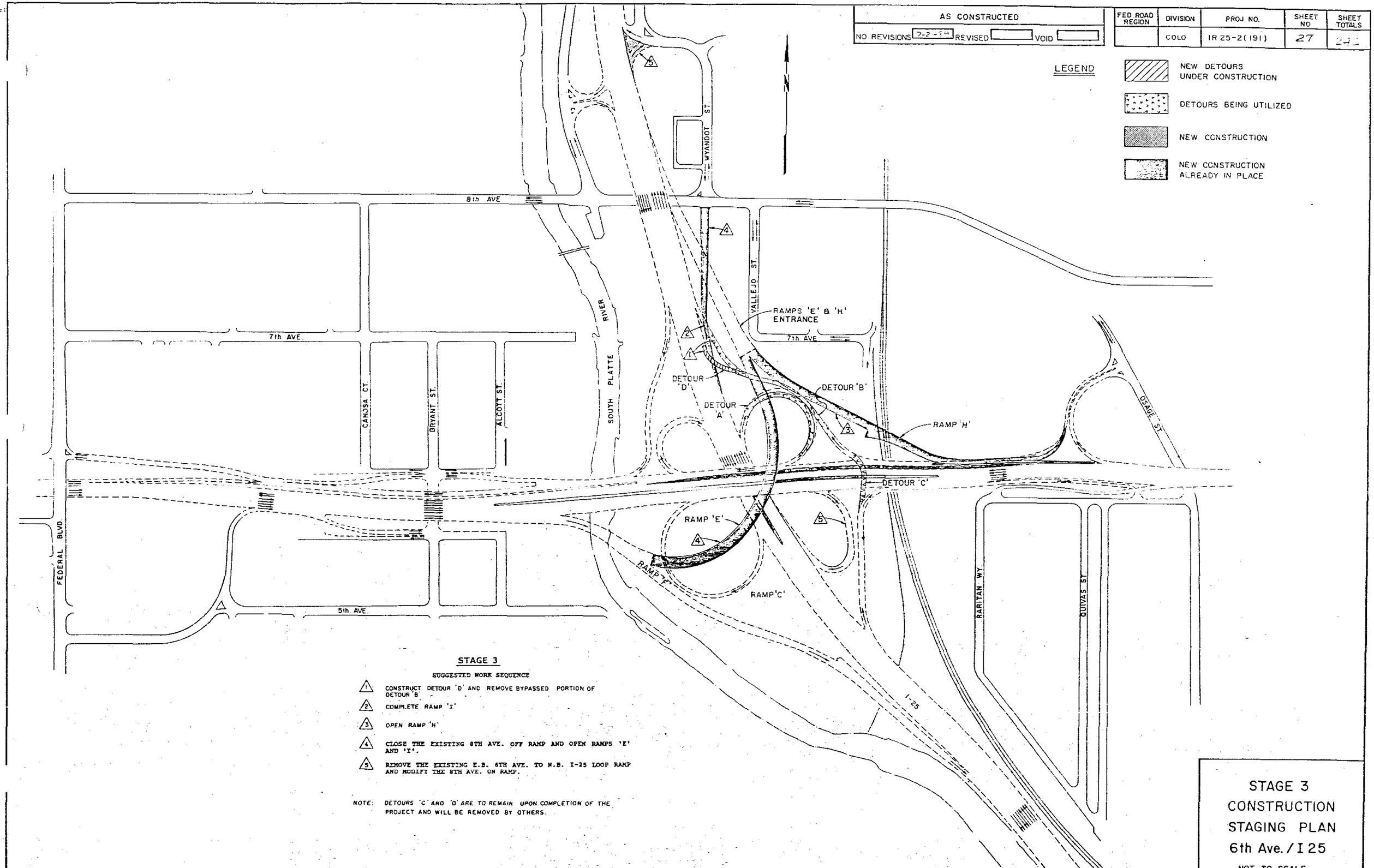
HWYS

AS CONSTRUCTED			
NO REVISIONS 7-2-91	REVISED	VOID	

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO	SHEET TOTALS
	COLO	IR 25-2(191)	27	241

LEGEND

- NEW DETOURS UNDER CONSTRUCTION
- DETOURS BEING UTILIZED
- NEW CONSTRUCTION
- NEW CONSTRUCTION ALREADY IN PLACE



STAGE 3

SUGGESTED WORK SEQUENCE

1. CONSTRUCT DETOUR 'D' AND REMOVE BYPASSED PORTION OF DETOUR 'B'
2. COMPLETE RAMP 'I'
3. OPEN RAMP 'H'
4. CLOSE THE EXISTING 8TH AVE. OFF RAMP AND OPEN RAMPS 'E' AND 'I'.
5. REMOVE THE EXISTING E.B. 6TH AVE. TO N.B. I-25 LOOP RAMP AND MODIFY THE 8TH AVE. ON RAMP.

NOTE: DETOURS 'C' AND 'D' ARE TO REMAIN UPON COMPLETION OF THE PROJECT AND WILL BE REMOVED BY OTHERS.

STAGE 3 CONSTRUCTION STAGING PLAN 6th Ave. / I 25

NOT TO SCALE

F COLORADO
PARTMENT OF HIGHWAYS
N OF HIGHWAYS
FORM NO. 126
EB. 1984

AS CONSTRUCTED		FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS	REVISED / VOID	VIII	COLO.	IR 25-2(191)	28	[illegible]

	RAMP 'A'	RAMP 'B'		RAMP 'C'		RAMP 'E'		
	Curve A-1	Curve B-1	Curve B-2	Curve C-1	Curve C-2	Curve E-1	Curve E-2	Curve E-3
PC	690230.075N 2136768.653E	689941.504N 2137059.615E	690185.576N 2137444.706E	689534.725N 2137124.285E	689254.787N 2136763.813E	689399.343N 2136541.036E	689449.797N 2137016.046E	690935.625N 2136770.161E
PI	689782.200N 2136674.721E	691500.218N 2136341.591E	689849.336N 2137726.845E	687961.515N 2138057.084E	689601.115N 2136417.485E	689247.780N 2136797.319E	689751.445N 2137342.646E	691144.560N 2136669.153E
PT	689739.611N 2136416.432E	690185.576N 2137444.706E	689808.721N 2137289.798E	689254.787N 2136763.813E	689646.435N 2136905.165E	689449.797N 2137016.046E	690151.713N 2137149.139E	691366.543N 2136601.479E
Δ	98° 00'52"RT.	164° 44' RT.	124° 41'27"RT.	165° 39'54"RT.	129° 41'27"RT.	73° 19'31"LT.	75° 04'32"LT.	8° 50'48" RT.
D	14° 19'26"	24° 54'40"	24° 54' 40"	24° 54'40"	24° 54'40"	14° 19'26"	9° 32'58"	1° 54'36"
R	400.00'	230.00'	230.00'	230.00'	230.00'	400.00'	600.00'	3000.00'
L	684.27'	661.28'	500.54'	665.02'	520.61'	511.91'	765.25'	463.22'
T	460.26'	1716.14'	438.93'	1328.96'	489.78'	297.75'	444.59'	232.07'
e	0.080 %	0.080 %	0.080 %	0.080 %	0.080 %	0.075 %	0.065 %	0.038 %
MDS/SSD	35 MPH/220'	30 MPH/205'	30 MPH/205'	30 MPH/206'	30 MPH/206'	35 MPH/227'	35 MPH/277'	50 MPH/577'

	RAMP 'F'				RAMP 'G'		RAMP 'H'	
	Curve F-1	Curve F-2	Curve F-3	Curve F-4	Curve G-1	Curve G-2	Curve H-1	Curve H-2
PC	689531.724N 2136128.524E	689195.348N 2136746.801E	688951.813N 2137311.367E	688358.905N 2138124.547E	689929.126N 2137796.568E	689784.226N 2137310-965E	689839.888 N 2138207.083 E	690182.064N 2137345.458E
PI	689530.069N 2136295.625E	689089.984N 2136888.823E	688889.809N 2137500.984E	688246.125N 2138257.010E	690055.444N 2137494.456E	689339.361N 2137069.994E	689826.511 N 2138058.444E	690285.221N 2137138.599E
PT	689430.502N 2136429.833E	689035.022N 2137056.903E	688760.481N 2137652.884E	688112.710N 2138368.662E	689784.226N 2137310.965E	688991.169N 2137418.956E	689693.112 N 2137924.889E	690491.278N 2137033.848E
Δ	36° 00'14"RT.	18° 27'49"LT.	22° 18'13"RT.	9° 39'49"RT.	78° 36'38"LT.	83° 40'08"LT.	31°38'50" RT.	36° 32'54"RT.
D	11° 03'30"	5° 15'58"	5° 39'42"	2° 47'02"	14° 19'26"	9° 32'58"	10°52'51"	8° 11'06"
R	514.25'	1088.00'	1012.00'	2053.09'	400.00'	600.00'	526.56'	700.00'
L	323.15'	350.61'	393.94'	347.12'	548.81'	876.18'	290.85'	446.52'
T	167.11'	176.84'	199.50'	173.97'	327.46'	537.11'	149.24'	231.15'
e	0.071 %	0.060 %	0.060 %	0.042 %	0.075 %	0.066 %	0.045%	0.060 %
MDS/SSD	35 MPH/245'	40 MPH/361'	40 MPH/348'	50 MPH/492'	35 MPH/236'	35 MPH/288'	35 MPH/258'	35 MPH/296'

	RAMP 'I'
	Curve I-1
P.C.	690452.186N 2136898.578E
P.I.	690537.627N 2136878.906E
P.T.	690625.290N 2136880.424E
Δ	13° 57'31"RT.
D	8° 00'00"
R	716.20'
L	174.48'
T	87.68'
e	0.050 %
MDS	35 MPH
SSD	360'

	6th. Avenue		
	Curve S-2	Curve S-3	Curve S-4
P.C.	689609.564N 2135295.318E	689752.652N 2137367.300E	689770.006N 2137889.380E
P.I.	689586.504N 2135579.404E	689768.084N 2137533.365E	689771.104N 2138092.792E
P.T.	689612.877N 2135863.201E	689768.984N 2137700.142E	689789.336N 2138295.388E
Δ	9° 57'00"LT.	5° 00'00"RT.	4° 50'00"LT.
D	1° 45'00"	1° 30'00"	1° 11'20"
R	3274.25'	3819.89'	4819.82'
L	568.61'	333.35'	406.59'
T	285.02'	166.78'	203.42'

	I-25 Left	I-25 Right
	Curve LCL-1	Curve RCL-1
T.S.	693168.641N 2136651.602E	693207.601N 2136561.656E
S.C.	692982.435N 2136578.661E	693017.693N 2136487.195E
P.I.	692344.641N 2136314.919E	692350.442N 2136211.424E
C.S.	691681.369N 2136505.736E	691656.553N 2136410.903E
S.T.	691488.178N 2136557.412E	691459.514N 2136463.676E
Δ	38° 02'00"LT.	38° 02'LT.
Ls	200.00'	204.00'
Ts	890.13'	925.95'
Δc	33° 02'00"	33° 08'34"
Dc	2° 30'00"	2° 23'51"
Rc	2291.83'	2389.96'
Lc	1321.33'	1382.47'
Os	2° 30'00"	2° 26'45"
LT	133.35'	136.01'
ST	66.68'	68.01'

	I-25 Left Control Line	
	Curve LCL-2	Curve LCL-3
P.C.	690477.690N 2136843.515E	688616.364N 2138058.466E
P.I.	689418.016N 2137143.545E	688416.564N 2138286.497E
P.T.	688692.224N 2137971.839E	688184.061N 2138481.074E
Δ	32° 58'LT.	8° 51' RT.
D	1° 32'22"	1° 27'45"
R	3722.00'	3917.83'
L	2141.56'	605.15'
T	1101.33'	303.18'
	I-25 Right Control Line	
	Curve RCL-2	Curve RCL-3
P.C.	690450.995N 2136749.221E	688542.656N 2137993.882E
P.I.	689363.417N 2137057.151E	688347.852N 2138216.212E
P.T.	688618.513N 2137907.307E	688121.161N 2138405.924E
Δ	32° 58'LT.	8° 51'RT.
D	1° 30'00"	1° 30'00"
R	3820.01'	3819.88'
L	2197.95'	590.02'
T	1130.33'	295.60'

I 25/6th. Ave.
GEOMETRIC LAYOUT SHEET

Scale 1"=150'

AS CONSTRUCTED					
NO REVISIONS	7-31-72	REVISED		VOID	

FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR25-2(191)	29	242

RIVER

ALCOTT ST.

SECTION LINE

STRUCTURE NO. F-16-EF

PC STA. 50+3.79 S-2 Bk.
POT STA. 50+28.37 Ah.

6TH AVE.

SURVEY CONTROL LINE 6TH AVE.

1171.63' MEDIAN TAPER

300' TAPER

STA 36+00.00

SURVEY CONTROL LINE 125 RCL

SURVEY CONTROL LINE 125 LCL

250' WIDENING

REMOVE CURB & GUTTER

HIGH MAST LIGHT #2 (EXISTING)

REMOVE CURB AND GUTTER

APPROX. 6' WIDENING CONTINUOUS UNDER STRUCTURE

GUARD RAIL TYPE 4 (STYLE CD) TO BE PLACED ALONG EXISTING ABUTMENT

EXISTING GUARD RAIL TYPE 3 TO BE CONNECTED TO GUARD RAIL TYPE 4 (STYLE CD)

STRUCTURE NO. F-16-DL

STRUCTURE NO. F-16-OG

REMOVE CURB & GUTTER

APPROX. 6' WIDENING

REMOVE MEDIAN *

P.C. STA. 65+38.95 S-3

500' MEDIAN TAPER

MATCH LINE STA. 64+50.00

NOTE: 6TH AVE. SURVEY CONTROL LINE DOES NOT REPRESENT THE ℄ OF 6TH AVE. OR THE LOCATION OF THE MEDIAN BARRIER.

* MEDIAN REMOVAL TO BE PAID FOR AS REMOVAL OF H.B.P. AND REMOVAL OF CURB & GUTTER; ON STRUCTURES PAYMENT WILL BE MADE FOR "REMOVAL OF PORTIONS OF PRESENT STRUCTURE."

** SEE STANDARD M-606-12 FOR TREATMENT BETWEEN PIERS.

STRUCTURE NO. F-16-NK

SECTION LINE

SOUTH PLATTE

STRUCTURE NO. F-16-OE

HIGH MAST LIGHT #6 (EXISTING)

RESET GUARD RAIL

SURVEY CONTROL LINE RAMP 'E'

APPROX. 6' WIDENING

REMOVE RAISED SHOULDER UNDER EXISTING 6TH AVE. STRUCTURE. PAYMENT WILL BE MADE FOR REMOVAL OF HBP AND REMOVAL OF CURB & GUTTER.

125' GUARD RAIL TYPE 3 WITH 75' FLARE CONNECT TO GUARD RAIL TYPE 4 (STYLE CD)

REMOVE GUARD RAIL TYPE 5

APPROX. 6' WIDENING, CONTINUOUS UNDER STRUCTURE

GUARD RAIL TYPE 4 SPECIAL**

GUARD RAIL TYPE 4 (STYLE CA.)

REMOVE GUARD RAIL EXISTING GUARD RAIL TYPE 4

75' TRANSITION

12' TRANSITION SECTION

MATCH EXISTING

I-25

HIGH MAST LIGHT #5 (EXISTING)

GEOMETRIC PLAN W. 6TH AVE.

ORIGINAL SCALE: 1" = 50'

AS CONSTRUCTED					
NO REVISIONS 7-21-87	REVISED		VOID		

FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR25-2(191)	30	242

NOTE: 6TH AVE. SURVEY CONTROL LINE DOES NOT REPRESENT THE ℄ OF 6TH AVE. OR THE LOCATION OF THE MEDIAN BARRIER.

* MEDIAN REMOVAL TO BE PAID FOR AS REMOVAL OF H.B.P. AND REMOVAL OF CURB AND GUTTER; ON STRUCTURES PAYMENT WILL BE MADE FOR "REMOVAL OF PORTIONS OF PRESENT STRUCTURE.

STRUCTURE NO. F-16-NO

STRUCTURE NO. F-16-OK

STRUCTURE NO. F-16-EJ

SURVEY CONTROL LINE RAMP 'H'

SURVEY CONTROL LINE RAMP 'G'

SURVEY CONTROL LINE RAMP 'E'

SURVEY CONTROL LINE 6TH AVE

SURVEY CONTROL LINE I-25 LCL

SURVEY CONTROL LINE I-25 RCL

RAMP 'G' (FUTURE)

MATCH LINE STA. 64+50.00

STA. 63+35 TO STA. 69+00 REMOVE EXISTING GUARD RAIL TYPE 3 AND RAISED MEDIAN AND INSTALL GUARD RAIL TYPE 4 (PRECAST PORTABLE)*

REMOVE CURB & GUTTER

REMOVE MEDIAN*

REMOVE MEDIAN*

REMOVE CURB AND GUTTER

REMOVE GUTTER

REMOVE CURB AND GUTTER

REMOVE ASPHALT MAT

LIMIT OF ASPHALT MAT REMOVAL

RESET GUARD RAIL TYPE 4

REMOVE CURB AND GUTTER

REMOVE CURB AND GUTTER

STA. 65+22.00 BEGIN CURB & GUTTER TY 2 II-B

STA. 66+80.00 END CURB & GUTTER TY 2 II-B

P.I. STA. 68+43.31 6TH AVE. OFFSET 2.89' RT M-1

P.C. STA 66+24.88 6TH AVE. OFFSET 14.04' RT M-1

P.C. STA. 65+38.95 S-3

P.T. STA. 68+72.30 S-3 Bk = EQ. P.O.T. STA. 68+67.51 Ah

P.C. STA. 70+56.75 S-4

P.T. STA. 70+56.75 6TH AVE. OFFSET 3.00' RT M-1

P.T. STA 74+63.34 S-4

P.C. STA. 75+32.91 S-5

SECTION LINE

SW1/4 SEC 4

NW 1/4 SEC. 9

6TH AVE.

RARITAN WY.

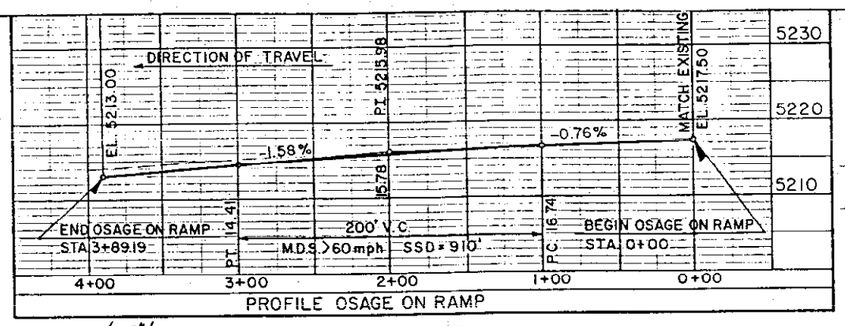
	MEDIAN Curve M-1
P.C.	689745.638N 2137453.928E
P.I.	689765.828N 2137671.195E
P.T.	689767.006N 2137889.395E
Δ	5°00'00"
D	1°08'47"
R	4997.68'
L	436.13'
T	218.20'

GEOMETRIC PLAN W. 6TH AVE.

ORIGINAL SCALE : 1"=50'

AS CONSTRUCTED			
NO REVISIONS		REVISED 7-21-89	VOID

FEDERAL AID PROJECT NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
	7 COLORADO	IR 25-2(191)	31	242



NOTE: 6TH AVE. SURVEY CONTROL LINE DOES NOT REPRESENT THE ℄ OF 6TH AVE. OR THE LOCATION OF THE MEDIAN BARRIER.

	OSAGE ON RAMP	
	Curve 0-1	Curve 0-2
P.C.	690173.000 2138664.500	689999.841 2138619.112
P.I.	690121.334 2138630.745	689875.901 2138607.246
P.T.	690059.899 2138624.863	689864.741 2138483.240
Δ	27°41'20"	79°23'18"
D	22°52'46"	38°11'50"
R	250.42'	150.00'
L	121.02'	207.84'
T	61.72'	124.51'

	6th. Avenue	
	Curve S-5	Curve S-6
P.C.	689795.572N 2138364.679E	689790.870N 2138900.248E
P.I.	689810.384N 2138534.820E	689781.423N 2139072.737E
P.T.	689801.542N 2138705.395E	689734.920N 2139245.449E
Δ	8°16'39"	4°17'43"
D	2°25'37"	1°14'33"
R	2360.79'	4606.52'
L	341.06'	345.33'
T	170.83'	172.75'

PLAN & PROFILE
OSAGE ON RAMP

ORIGINAL SCALE 1"=50'

DEPARTMENT OF HIGHWAYS
OF HIGHWAYS STATE OF COLORADO
PROJ. NO. 1241
1977

AS CONSTRUCTED			
NO REVISIONS 7-21-89	REVISED	VOID	

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR 25-2(191)	32	242

EXIT NOSE RAMP 'E'
STA. 602+40.50 OFFSET 36' RT.
STA. 710+08.51 RAMP 'E'
OFFSET 21' LT.

BEGIN STRUCTURE F-16-OG
STA. 602+78.57

HOLE 7

HOLE 18

SURVEY CONTROL LINE RAMP 'E'

RAMP 'C' ENTRANCE NOSE
STA. 410+91.20 OFFSET 21' LT.
STA. 59+70.79
OFFSET 62' RT.

SOUTH PLATTE RIVER

SW 1/4 SEC. 4
NW 1/4 SEC. 9

SECTION LINE

W. 6TH AVE.

P.C.C. STA. 606+78.96 E-2

HOLE 6

HOLE 19

HOLE 20

RAMP 'G' (FUTURE)

HOLE 5

HIGH MAST LIGHT POLE #2 (EXISTING)

HOLE 21

PT. STA. 614+44.21 E-2

194.84' TAPER

RAMP 'B' (FUTURE)

HOLE 3

ENTRANCE NOSE RAMP 'H'
STA. 913+40.05 RAMP 'H'
OFFSET 20' LT. =
STA. 617+12.94 RAMP 'E'
OFFSET 31' RT.

VALLEJO ST.

END STRUCTURE F-16-OG
STA. 616+56.62

RESET GUARD RAIL TYPE 4

STRUCTURE NO. F-16-NO

W. 7TH AVE.

UMATILLA ST.

SURVEY CONTROL LINE, RAMP 'H'

605

610

615

275

910

BEGIN STRUCTURE F-16-OG
STA. 602+78.57
EL. 5224.97

EXIT NOSE RAMP 'E' STA. 602+40.50
RAMP 'E' STA. 710+08.51

200' V.C.

P.C. 25.83

P.T. 34.01

29.87

+4.176 %

+4.000%

6'-6"

17'-3" MIN. CLEARANCE

P.I. 5229.83

EXISTING RAMP 'C'

P.I. 5262.51
STA. 611+82.61

END STRUCTURE F-16-OG
STA. 616+56.62
EL. 5243.07

4.10 %

6'-6"

P.C. 47.48

16'-8" MIN. CLEARANCE

55.06

720' V.C.
MDS = 43 MPH SSD = 340'

P.T. 47.75

39'-4" MIN. CLEARANCE

TEST HOLE 3

TEST HOLE 7

TEST HOLE 18

TEST HOLE 6

TEST HOLE 19

TEST HOLE 20

TEST HOLE 5

TEST HOLE 21

STA. 603+11.79
e = -0.075

P.C.C. STA. 606+78.96
e = -0.075

100'

e = -0.066
STA. 607+78.96

EXIST. I 25

I-25 LCL

I-25 RCL

6TH AVE.

EXIST. RAMP

150'

STA. 614+04.21
e = 0.066

P.T. STA. 614+44.21

e = 0.020
STA. 615+54.21

R = 400'
M.D.S. = 35 MPH

R = 600'
M.D.S. = 35 MPH

5260
5250
5240
5230
5220
5210
5200
5190
5180

605+00
610+00
615+00

PLAN & PROFILE RAMP 'E'

ORIGINAL SCALE
1" = 50' HORZ.
1" = 10' VERT.

AS CONSTRUCTED			
NO REVISIONS 7-21-39	REVISED		VOID

FEDERAL HIGHWAY REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR 25-2(191)	33	242

BEGIN RAMP 'H' STA. 900+39.86=
57.53' LT. OF STA. 73+78.91
ON U012-2(13)

P.I. STA. 77+03.74 S-5
P.C. STA. 75+32.91 S-5
P.T. STA. 74+63.34 S-4
P.I. STA. 72+60.16 S-4
P.I. STA. 901+89.10 H-1
P.I. STA. 67+05.73 S-3
P.C. STA. 65+38.95 S-3
P.T. STA. 3+89.19 RAMP OSAGE*
P.C. STA. 76+54.09
STA. 76+ OFFSET 61.4' LT.
61st Ave.
NW 1/4 SEC. 9
SW 1/4 SEC. 4
EXIT NOSE RAMP 'H'
STA. 71+77.78 6th Ave.
OFFSET 66' LT.=
STA. 902+34.76 RAMP 'H'
OFFSET 21' LT.
BEGIN RET. WALL W-2
STA. 902+78.23 OFFSET 24.4' LT.
END RET. WALL W-2 OFFSET 15.11' LT.
STA. 902+96.47
P.C. STA. 70+56.75 S-4
EQ. P.T. STA. 68+72.30 S-3 Bk.*
P.O.T. STA. 68+67.51 Ah.
W. 6th. Ave.
SECTION LINE
IMPACT ATTENUATOR (SANDWICH SYSTEM) - SEE DETAIL
GUARD RAIL TYPE 4 (PRECAST - PORTABLE)*
EXIT NOSE RAMP 'G'
STA. 905+78.21
OFFSET 24' LT.=
STA. 802+81.36 RAMP 'G'
OFFSET 25' RT.
RAMP 'G' (FUTURE)
STRUCTURE NO. F-16-0G
SURVEY CONTROL LINE RAMP 'E'
HIGH MAST LIGHT POLE #3 (EXISTING)
HIGH MAST LIGHT POLE #2 (EXISTING)
HOLE HM-3
GUARD RAIL TYPE 4 (PRECAST PORTABLE) 9'
120' TAPER
P.C. STA. 801+70.53 G-1
HOLE 33
HOLE 32
45' TAPER
R=3'
PERMANENT EASEMENT
RESET FENCE ***
HOLE 30
IMPACT ATTENUATOR (FUTURE)
STRUCTURE NO. F-16-0K
SURVEY CONTROL LINE RAMP 'H'
HOLE 34
STRUCTURE NO. F-16-N0
HOLE 36
RAMP 'B' (FUTURE)
HOLE 4
P.C. STA. 909+78.20 H-2
P.I. STA. 912+09.35 H-2
R.O.W.
L.S.
R=1'
STA. 75+00.00 6th AVE. BEGIN 7' GUARD RAIL TYPE 3 FLARE
STA. 74+25.00 GUTTER STA. CURB & RAIL END GUARD RAIL** BEGIN 4' SPECIAL TYPE 4
P.C. STA. 900+39.86 H-1
BEGIN RET. WALL W-1
STA. 901+64.21 OFFSET 9.5' RT.
BEGIN RAMP 'G' STA. 800+00.00*
STA. 902+92.53 RAMP 'H'
OFFSET 15.12' LT.
END RET. WALL W-1
STA. 902+96.51
OFFSET 9.5' RT.
P.T. STA. 903+30.72 H-1

*FLOW LINE GUARD RAIL TO MATCH FLOW LINE ON BRIDGE STRUCTURE

**FLOW LINE GUARD RAIL TO MATCH FLOW LINE CURB & GUTTER COLOR TO MATCH BRIDGE RAIL TYPE 4

***FENCE TO BE TEMPORARILY RESET ALONG PERMANENT EASEMENT DURING CONSTRUCTION AND RESET BACK TO ORIGINAL LOCATION WHEN CONSTRUCTION IS COMPLETED.

DIRECTION OF TRAVEL
131.15'
STA. 802+16.59
e=0.0275
e=0.075
STA. 803+47.74
BEGIN RAMP 'G' PROFILE
STA. 802+16.59
EL. 5243.01
+4.50%
+5.64%
RAMP 'G' PGL
P.I. 5261.00
STA. 908+16.00
END RAMP 'H' THIS PROJECT
RAMP 'H' STA. 912+85.32
EL. 5241.96
RAMP 'H' PGL
-4.057%
BEGIN RAMP 'H' STA. 900+39.86=
57.53' LT. OF STA. 73+78.91
ON U012-2(13)
GRAPHIC PROFILE
EXIT. NOSE RAMP 'H' STA. 902+34.76=
61st AVE. STA. 71+77.78 EL.=5227.97
STA. 903+00.00
BEGIN RAMP 'H' PROFILE
6'-6"
P.C. 48.31
450' V.C.
M.D.S.= 36 mph
S.S.D. = 248'
P.T. 5187
5555
27'-7" MINIMUM CLEARANCE
R.R.
EXIT NOSE RAMP 'G' STA. 802+81.36= RAMP 'H' STA. 905+78.21
FUTURE RAMP 'B'
EXIST. RAMP 6th W.B. TO I-25 N.B.
FUTURE RAMP 'B'
5217.91
5218.40
5219.85
5220.96
5222.30
5223.64
5225.02
5226.29
5227.50
5228.89
5230.39
5231.90
100' TRANSITION
e=MATCH EXISTING
P.C. STA. 900+39.86
e=0.0450
STA. 901+39.86
R=526.58'
M.D.S. 35 mph
SSD=258'
TEST HOLE 33
TEST HOLE 32
P.T. STA. 903+30.72
e=0.045
TEST HOLE HM-3
179.47
EXIST. ROAD
e=-0.020
STA. 905+10.19
TEST HOLE 30
TEST HOLE 34
STA. 908+18.20
e=-0.02
TEST HOLE 36
EXIST. RAMP 6th W.B. to I-25 N.B.
200
TEST HOLE 4
P.C. STA. 909+78.20
e=0.060
STA. 910+18.20
R=700'
MDS=35 mph
5260
5250
5240
5230
5220
5210
5200
5190
5180
900+00
905+00

PLAN & PROFILE
RAMP 'H'

ORIGINAL SCALE
1" = 50' HORZ.
1" = 10' VERT.

DEPARTMENT OF HIGHWAYS
HIGHWAY SYSTEM-STATE OF COLORADO
PROJ NO. 1241

AS CONSTRUCTED			
NO REVISIONS 7-21-69	REVISED	VOID	

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR 25-2(191)	34	242

SOUTH PLATTE RIVER

SE 1/4 SEC. 5
SW 1/4 SEC. 4
SECTION LINE

SURVEY CONTROL LINE 8TH AVE.

W. 8TH AVE.

R=15'

SEE DETAIL FOR CONCRETE CURB RAMP

8' SIDEWALK

STRUCTURE NO. F-16-DX

STRUCTURE NO. F-16-IU

BEGIN TAPER STA. 627+78.14 E-3* PT. STA. 258+83.20 LCL OFFSET 9.264 LT.

ST. 258+48.77 RCL BK* EQ. POST. 257+56.21 RCL AH

END TAPER STA. 256+35.83 LCL OFFSET 5' LT.

C.S. 255+39.98 LCL

C.S. 256+44.77 RCL

BEGIN TAPER STA. 254+80.00 LCL

END TAPER STA. 252+40.00 LCL

MP 209.68 END PROJECT IR25-2(191)
30.00 FT. RT. OF STA. 253+35.00
ON I25-2(91) 209

ENTRANCE NOSE RAMP E
STA. 625+66.21 RAMP E
OFFSET 5' LT. =
STA. 260+95.22 LCL
OFFSET 16' LT.

STRUCTURE NO. F-16-IT

240' TAPER

150' SHOULDER TRANSITION

50:1 TAPER

REMOVE TRAFFIC ISLAND*

REMOVE ASPHALT MAT

REMOVE CURB & GUTTER

CURB & GUTTER TYPE 2 II-6

R=125'

REMOVE TRAFFIC ISLAND*

R=3'

P.I. 625+46.98E-3

P.I. 257+39.99 LCL BK* POST. 257+54.18 LCL AH

HIGH MAST LIGHT # 1 (EXISTING)

P.C. 268+04.37 RCL

P.C. 268+04.37 LCL

SURVEY CONTROL LINE I25RCL

SURVEY CONTROL LINE I25 LCL

200' TAPER AND SHOULDER TRANSITION

300' RECOVERY LANE

SURVEY CONTROL LINE RAMP 'E'

P.C. 623+14.92 E-3

SURVEY CONTROL LINE RAMP 'H'

STA. 918+24.70 RAMP H =
STA. 622+00.00 RAMP E
OFFSET 36' LT.

HIGH MAST LIGHT # 7 (EXISTING)

WYANDOT ST.

1805
1808
255
260
265
605
620
625
915

* PAYMENT WILL BE MADE FOR REMOVAL OF CURB & GUTTER AND REMOVAL OF H.B.P.

NOTE: SURVEY CONTROL LINE 8TH AVE. OFFSET 5 FEET SOUTH OF CENTER LINE 8TH AVE.

PLAN RAMP 'E'/ I25 NORTHBOUND

ORIGINAL SCALE 1" = 50'

DEPARTMENT OF HIGHWAYS
OF HIGHWAYS STATE OF COLORADO
FORM NO. 134-1
877

AS CONSTRUCTED			
NO REVISIONS 7-21-89	REVISED		VO'D

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR 25-2(191)	35	242

BEGIN RAMP 'I' STA. 1000+00.00=
17 FT. LT. OF STA. 271+35.50
ON I25-2(91) 209

EXIT NOSE RAMP 'I' OFFSET 21' LT.
STA. 1002+20.00 I25 LCL OFFSET 20' LT.
STA. 269+13.38 I25 LCL

P.C. STA. 1002+90.00 I-I
P.C. STA. 268+04.37 I25 LCL
P.C. STA. 268+04.37 I25 RCL
P.T. STA. 1003+77.68 I-I
P.T. STA. 1004+64.48 I-I
STA. 266+60.00

HIGH MAST LIGHT # 1 (EXISTING)

SHADED AREA TO BE PAVED WITH H.B.P.

300' RECOVERY LANE

REMOVE CURB AND GUTTER

GUARD RAIL TYPE 4 (PRECAST PORTABLE) WITH 75' TYPE 3 FLARE

REMOVE GUARD RAIL TYPE 5

GUARD RAIL TYPE 4 SPECIAL WITH 75' TYPE 3 FLARE

STRUCTURE NO. F-16-TU

STRUCTURE NO. F-16-DX

100' TAPER & SHOULDER TRANSITION

STA. 1007+75.00

SURVEY CONTROL LINE 8TH

12' END SECTION

45' TAPER

100' TAPER

75' GUARD RAIL TYPE 3 FLARE

12' END SECTION GUARD RAIL TYPE 4 SPECIAL

CURB AND GUTTER TYPE 2 SECTION II B

SURVEY CONTROL LINE I25 RCL

SURVEY CONTROL LINE I25 LCL

SURVEY CONTROL LINE RAMP 'I'

SURVEY CONTROL LINE RAMP 'H'

DETOUR "D"

RAMP 'B' (FUTURE)

PERMANENT EASEMENT

R.O.W.

HIGH MAST LIGHT # 7 (EXISTING)

WYANDOT ST.

W. 8TH AVE.

END RAMP 'I' STA. 1008+95.32
200.26 FT LT OF STA 262+59.96
ON I25-2(91)209

* R. 12' END SECTION TO MATCH R. CURB AND GUTTER

R=116.2'
M.D.S.= 35 mph
S.S.D.= 300'

DIRECTON OF TRAVEL

CROSS SLOPE VARIES
SEE TYPICAL SECTIONS

RAMP 'I'

16'-7" MIN. CLEARANCE

200' V.C.
M.D.S.= 35 mph

300' V.C.
M.D.S.= 39 mph
S.S.D.= 284'

MATCH EXISTING 8th Ave

EXISTING EDGE OF PAVEMENT N.B. I-25

EXISTING GROUND LINE

GRAPHIC PROFILE

EXIT NOSE STA. 1002+20.00 RAMP 'I'

P.C. STA. 1002+90.00

P.I. STA. 1002+50.00

P.I. STA. 1004+24.48

P.T. STA. 1004+64.48

P.I. STA. 1005+24.48

P.I. STA. 1007+20

P.T. STA. 98.30

P.I. STA. 100.23

P.C. STA. 07.12

P.T. STA. 04.16

P.I. STA. 07.63

P.I. STA. 99.03

P.I. 5196.80

+1.529%

-3.43%

+1.50%

PGL RAMP 'I'

℄ 8th Ave.

EL. 5204.22
EL. 5205.14
EL. 5206.00
EL. 5206.29
EL. 5206.57
EL. 5206.86

PLAN & PROFILE RAMP 'I'

ORIGINAL SCALE
1"= 50 FT. HORZ.
1"= 10 FT. VERT.

DEPARTMENT OF HIGHWAYS
OF HIGHWAYS STATE OF COLORADO
FORM NO. 1341
L 1917

AS CONSTRUCTED			
NO REVISIONS 7-2 -73	REVISED	VOID	

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO	TOTAL SHEETS
VIII	COLORADO	IR 25-2(191)	36	241

SHORING FOR PIER FOOTING EXCAVATION REQUIRED TO MAINTAIN DETOUR RAMP TO BE SUPPLIED BY CONTRACTOR AS NECESSARY. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.

DETOUR B TO UTILIZE EXISTING PAVEMENT BETWEEN STA. 1601+75.00 AND STA. 1603+08.54. NEW PAVEMENT BETWEEN THESE STATIONS (SHOWN SHADED) TO MATCH GRADE AND CROSS SLOPE OF EXISTING LOOP RAMP.

RESET GUARD RAIL TYPE 4

SURVEY CONTROL LINE RAMP 'H'

REMOVE ASPHALT MAT

REMOVE GUTTER

P.C.C. 1502+21.54 DET. A-2

SURVEY CONTROL LINE RAMP 'I'

END DETOUR B
STA. 1608+66.27 =
STA. 268+00.38 I25 LCL
OFFSET 51.47' LT.

P.T. 1606+79.39 DET. B-2

P.C.C. 1604+33.54 DET. B-2

12' TRANSITION SECTION

P.C. 1601+17.65 DET. B-1

REMOVE CURB & GUTTER

12' TRANSITION SECTION

BEGIN DETOUR B
STA. 1600+00.00 =
STA. 66+98.19 6th Ave.
OFFSET 183.43' LT.

12' TRANSITION SECTION

REMOVE GUTTER

DETOUR B

12"CORRUGATED STEEL PIPE FOR DRAINAGE OF DETOURS "B" AND "D". CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING TO DRAIN.

WIDENING FOR DETOUR A TO MATCH GRADE AND CROSS SLOPE OF EXISTING LOOP RAMP.

DETOUR A

BEGIN DETOUR A
P.C. 1500+00.00 DET. A-1 =
STA. 272+49.56 I25 LCL
OFFSET 125.60' LT.

12' TRANSITION SECTION

SURVEY CONTROL LINE RAMP 'E'

END DETOUR A
P.T. 1505+40.32 DET. A-2 =
STA. 65+69.34 6th Ave.
OFFSET 127.46' LT.

12' TRANSITION SECTION

RAMP 'G' (FUTURE)

	DETOUR B	
	Curve DET. B-1	Curve DET. B-2
P.C.	690046.191 2137453.096	690211.000 2137195.000
P.I.	690187.865 2137361.895	690228.993 2137065.202
P.T.	690211.000 2137195.000	690338.863 2136993.789
Δ	49°20'13"	49°05'07"
D	15°37'05"	19°57'56"
R	366.66'	286.97'
	315.90'	245.85'
	168.49'	131.04'
e	MATCH EXIST.	0.065 ft/ft
M.D.S.	25 MPH	25 MPH

	DETOUR A	
	Curve DET. A-1	Curve DET. A-2
P.C.	690106.000 2137106.000	690152.000 2137307.000
P.I.	690205.655 2137188.957	690063.187 2137502.393
P.T.	690152.000 2137307.000	689882.349 2137386.790
Δ	74°40'05"	98°08'46"
D	33°42'12"	30°47'18"
R	170.00'	186.10'
L	221.54'	318.78'
T	129.67'	214.63'
e	MATCH EXIST.	MATCH EXIST.
M.D.S.	25 MPH	25 MPH

DETOUR A

NOTE: WIDENING FOR DETOUR A TO MATCH EXISTING GRADE AND CROSS SLOPE (SEE DETOUR CROSS SECTIONS)

BEGIN DETOUR A STA. 1500+00.00

EXISTING GROUND LINE ALONG DETOUR A CONTROL LINE

END DETOUR A STA. 1505+40.32

END DETOUR B STA. 1608+66.27

P.T. 07.80

P.C. 06.71

06.76

120' V.C. M.D.S.=30 MPH

+2.549%

P.I. 5206.27

STA. 1608+66.27 e=MATCH EXISTING

P.T. STA. 1606+79.39

e=-0.065

226.88'

DIRECTION OF TRAVEL

DETOUR B

P.T. 08.29

250' V.C. M.D.S.=35MPH

P.C. 14.70

10.35

-4.40%

0.733%

BEGIN DETOUR B STA. 1600+00.00

e=MATCH EXISTING

175'

P.C. STA. 1601+17.65

R = 366.86'

R = 286.97

P.C.C. STA. 1604+33.54

P.I. 5209.20

e=-0.065

150'

STA. 1603+58.54 e=MATCH EXISTING RAMP

e=MATCH EXISTING RAMP

175'

5240
5230
5220
5210
5200
5190

1500+00 2 3 4 1505+00 8 7 6 1605+00 4 3 2 1600+00

PLAN & PROFILE
DETOURS

ORIGINAL SCALE
1" = 50' HORZ.
1" = 10' VERT.

AS CONSTRUCTED			
NO REVISIONS 7-21-69	REVISED	VOID	

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR 25-2(191)	37	242

BEGIN DETOUR D
STA. 1900+00.00 =
STA. 271+82.49 I 25 LCL
OFFSET 247.62' LT.

END DETOUR D
STA. 1903+97.43 =
STA. 269+84.10 I 25 LCL
OFFSET 16.14' LT.

P.T. 1903+97.43 DET. D-1

REMOVE ASPHALT MAT

SURVEY CONTROL LINE DETOUR D

12' END SECTION

DETOUR D TO MATCH EXISTING RAMP I

P.C. 1901+08.15 DET. D-1

GUARD RAIL TYPE 4 (PRECAST PORTABLE)

SURVEY CONTROL LINE I 25 LCL

SURVEY CONTROL LINE I 25 RCL

DETOUR A

DETOUR B

P.T. 2002+89.81 DET. C-1

END DETOUR C
STA. 2002+89.81 =
STA. 67+68.08 6th Ave.
OFFSET 80.03' LT.

P.C. 2001+38.80 DET. C-1

SURVEY CONTROL LINE 6th AVE

SURVEY CONTROL LINE DETOUR C

DETOUR C TO MATCH EXISTING RAMP

BEGIN DETOUR C
STA. 2000+00.00 =
STA. 67+98.37 6th Ave.
OFFSET 192.93' RT.

	DETOUR D
	Curve DET. D-1
P.C.	690225.850 2137087.876
P.I.	690248.269 2136926.140
P.T.	690405.376 2136881.658
Δ	66°17'56"
D	22°55'06"
R	250.00'
L	289.285'
T	163.282'
e	0.06
M.D.S.	30 MPH

	DETOUR C
	Curve DET. C-1
P.C.	689712.810 2137647.537
P.I.	689794.825 2137657.379
P.T.	689846.989 2137593.330
Δ	57°40'56"
D	38°11'50"
R	150.00'
L	151.01'
T	82.60'
e	Match Exist
M.D.S.	25 M.P.H.

NOTE: PROFILES ARE APPROXIMATE ONLY AND FINAL ADJUSTMENTS ARE TO BE MADE DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER.

DETOUR D

DIRECTION OF TRAVEL

140' V.C.
M.D.S. = 30 MPH

250' V.C.
M.D.S. = 35 MPH

2.42%
-0.92%
-4.40%

P.T. 07.86
P.C. 06.83
P.T. 08.05
P.C. 14.70
06.45
10.29

P.T. STA. 1903+97.43
END DETOUR D
STA. 1903+97.43

P.I. EL. 5206.19
STA. 1902+95.00

BEGIN DETOUR D
STA. 1900+00.00 =
STA. 1604+33.54
DETOUR B

P.I. EL. 5209.20
STA. 1604+00.00

e = 0.06
e = MATCH EXISTING
100'
UTILIZE EXISTING PAVEMENT
P.C. STA. 1901+08.15
R = 250'

5220
5210
5200

DETOUR C

DIRECTION OF TRAVEL

P.I. EL. 5235.79

5.56%
-3.40%

END DETOUR C
STA. 2002+89.81

UTILIZE EXISTING ROADWAY

P.T. 36.67

100' V.C.
MDS = 25 MPH

BEGIN DETOUR C
STA. 2000+00.00
P.C. 33.00

R = 150'

P.T. 2002+89.8
P.C. 2001+38.80

5240
5230
5220

2003+00

PLAN & PROFILE DETOURS

ORIGINAL SCALE
1" = 50' HORIZ.
1" = 10' VERT.

F COLORADO
EPARTMENT OF HIGHWAYS
N OF HIGHWAYS:
, FORM NO. 126
EB. 1984

AS CONSTRUCTED

NO REVISIONS 7-21-89 REVISED [ ] VOID [ ]

FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	38	242

T=20 scale 20 0 20 40 feet

ORIGINAL SCALE 1"= 20'

POINT	OFFSET	STATION	CONTROL LINE
1	81.43	1806+67.43	8 TH AVE.
2	29.97	1806+03.79	" "
3	74.98	1807+27.47	" "
4	30.24	1807+72.38	" "
5	17.00	1008+57.76	RAMP 'I'
6	14.07	1807+59.33	8 TH AVE.
7	29.00	1008+81.22	RAMP 'I'
8	18.50	1806+55.73	8 TH AVE.
9	57.13	1806+56.71	" "
10	43.36	1807+40.71	" "
11	23.00	1807+34.30	" "
12	23.00	1806+66.44	" "
13	9.00	1808+78.00	" "

SURVEY CONTROL LINE RAMP 'E'

WYANDOT ST.

MATCH EXISTING

25' DRIVEWAY

6'

20'

6'

25' DRIVEWAY

6'

11'

CURB TYPE 2 (6" BARRIER) (SECTION B)

5' SIDEWALK *

CURB AND GUTTER TYPE 2 SECTION II B

REMOVE EXISTING GUTTER

CURB TYPE 2 (6" BARRIER) (SECTION B)

EXISTING PARKING

5' SIDEWALK

SEE DETAIL FOR CONCRETE CURB RAMP (TYPICAL)

MATCH EXISTING

REMOVE EXISTING ISLAND **

R=65'

4'-6" SIDEWALK *

6'

25' DRIVEWAY 6' 30'

R=45'

5' SIDEWALK *

PERMANENT EASEMENT

REMOVE EXISTING SIDEWALK

EXISTING PARKING

40'

MATCH EXISTING SIDEWALK

PLANT MIXED SEAL COAT 83 TONS ESTIMATED

* SIDEWALK TO BE POURED MONOLITHICALLY WITH CURB AND GUTTER.

** PAYMENT WILL BE MADE FOR REMOVAL OF CURB & GUTTER AND REMOVAL OF ASPHALT MAT.

*** MATCH EXISTING PAVEMENT

STA. 1808+40.00
END CURB TYPE 2
TRANSITION SIDEWALK TO MATCH EXISTING IN 40 FT.

c W.V.
o W.V.

FOR TRAFFIC ISLAND LOCATION AND DESIGN SEE DETAIL

REMOVE EXIST. SIDEWALK & DRIVEWAY

MATCH EXISTING

CURB AND GUTTER TYPE 2 SECTION II B

REMOVE EXIST. CURB AND GUTTER

REMOVE EXISTING CURB AND GUTTER

MATCH EXISTING

CURB AND GUTTER TYPE 2 SECTION II B

W. 8th Ave.

SURVEY CONTROL LINE 8 TH AVE.

625

1805

NEW CHAIN LINK FENCE TO MATCH EXISTING

MATCH EXISTING

8' SIDEWALK *

STA. 1008+95.32 RAMP 'I' = STA. 1807+00.00 8TH AVE. OFFSET 20.27' RT

6' 16' 6' 10' 6' 25' 6' 7' SIDEWALK *

DRIVE-WAY

DRIVEWAY

STA. 624+68.92 RAMP 'E' = STA 1805+18.88 8 TH AVE.

REMOVE BARRICADE

REMOVE EXIST. CURB AND GUTTER

R=15'

25'

R=45'

PERMANENT EASEMENT

CURB TYPE 2 (6" BARRIER) (SECTION B)

R=25'

GAS PUMPS

MATCH EXISTING

STRUCTURE NO. F-16-DX

I 25

RAMP 'E'

RAMP 'I'

60'

8'

CURB AND GUTTER TYPE 2 SECTION II B

27' 15'

FIELD OFFICE SITE

CURB AND GUTTER TYPE 2 SECTION II B

VALLEJO ST.

STA. 1008+95.32 IR 25-2(191) = STA. 262+59.96 ON I25-2(91)209

POINT	ELEV.	POINT	ELEV.
1	5198.90	11	5199.40
2	5199.35	12	5199.40
3	5198.65	13	***
4	5199.14	14	5199.60
5	5198.78	15	5199.50
6	5199.50	16	5199.60
7	5199.10	17	5198.55
8	5199.43		
9	5199.10		
10	5198.90		

P.C. STA. 623+14.92 E-3

SURVEY CONTROL LINE I-25 (LCL)

GENERAL NOTES

SURVEY CONTROL LINE 8TH AVE. OFFSET 5 FEET SOUTH OF CENTER LINE 8TH AVE.

ALL POINTS REFERENCED BY STATION AND OFFSET ARE ON FLOW LINE.

SHADED AREA TO BE OVERLAYED WITH 3/4" PLANT MIXED SEAL COAT (TYPE B).

VALVES AND SIGN NORTH OF GAS PUMPS NOT TO BE DISTURBED.

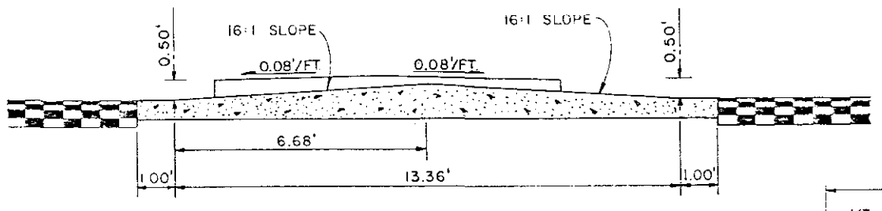
POINT ELEVATIONS ARE AT LIP OF GUTTER.

8TH AVE. & WYANDOT INTERSECTION PLAN

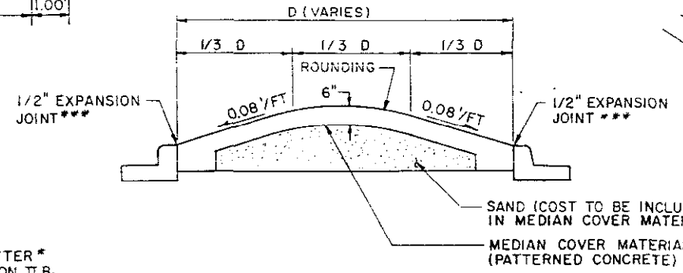
ORIGINAL SCALE 1" = 20'

OF COLORADO
DEPARTMENT OF HIGHWAYS
ION OF HIGHWAYS
M, FORM NO. 1263
EB. 1984

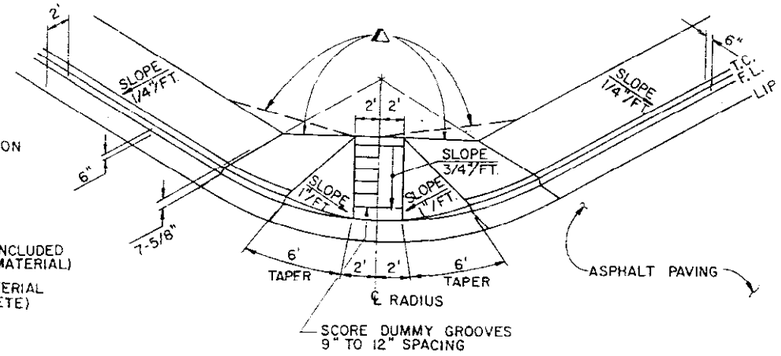
AS CONSTRUCTED									
NO REVISIONS [ ]	REVISED [ ]	VOID [ ]	FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
			VIII	COLO.	IR 25-2(191)	39	242



SECTION A-A



DETAIL OF ISLAND ROUNDING

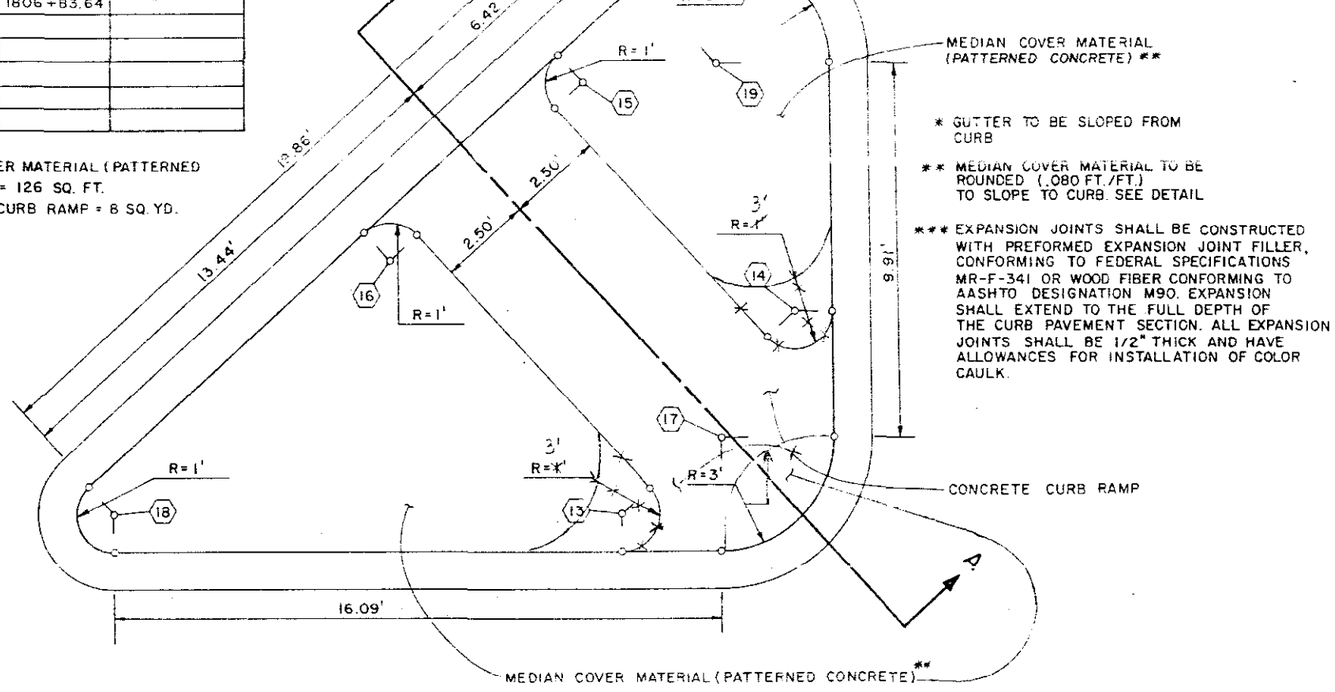


△ — DESIGN FOR BACK OF WALK NEAR RAMP AREA WILL BE AS SHOWN ON PLANS OR AS DIRECTED

CURB RAMP DETAIL

POINT	OFFSET	STATION	CONTROL LINE
13	32.89	1806+81.07	8 TH AVE.
14	38.22	1806+85.68	" "
15	44.31	1806+80.14	" "
16	39.59	1806+74.96	" "
17	34.68	1806+83.70	" "
18	32.90	1806+67.61	" "
19	44.80	1806+83.64	" "

NOTE : MEDIAN COVER MATERIAL (PATTERNED CONCRETE) = 126 SQ. FT.
CONCRETE CURB RAMP = 8 SQ. YD.

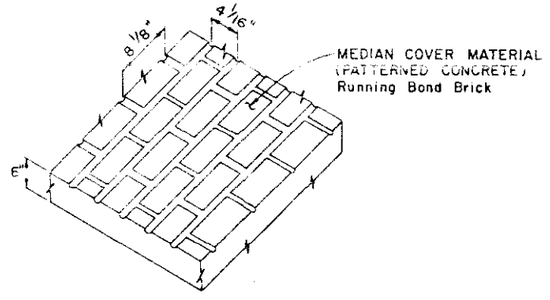


* GUTTER TO BE SLOPED FROM CURB

** MEDIAN COVER MATERIAL TO BE ROUNDED (.080 FT./FT.) TO SLOPE TO CURB. SEE DETAIL

*** EXPANSION JOINTS SHALL BE CONSTRUCTED WITH PREFORMED EXPANSION JOINT FILLER, CONFORMING TO FEDERAL SPECIFICATIONS MR-F-341 OR WOOD FIBER CONFORMING TO AASHTO DESIGNATION M90. EXPANSION SHALL EXTEND TO THE FULL DEPTH OF THE CURB PAVEMENT SECTION. ALL EXPANSION JOINTS SHALL BE 1/2" THICK AND HAVE ALLOWANCES FOR INSTALLATION OF COLOR CAULK.

TRAFFIC ISLAND DETAIL



MEDIAN COVER MATERIAL DETAIL

NOTE: MEDIAN COVER MATERIAL (PATTERNED CONCRETE) SHALL BE MIXED AT THE PLANT AND IS TO BE COLORED WITH ONE OF THE FOLLOWING OR AN APPROVED EQUAL;

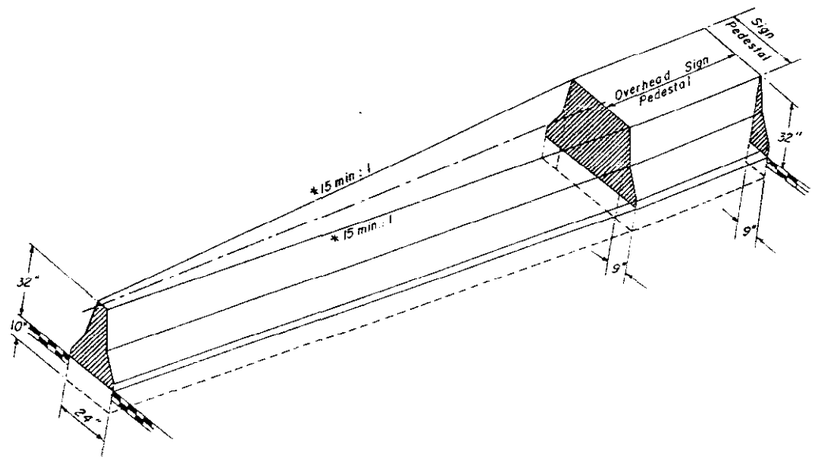
COLOR	MANUFACTURER
1. ARIZONA TAN (A-53-P)	L.M. SCOFIELD CO.
2. DESERT TAN	BOMANITE CORP.
3 MESA BUFF (NO 5447)	FRANK DAVIS CO.

TRAFFIC ISLAND, CURB RAMP AND MEDIAN COVER MATERIAL DETAILS

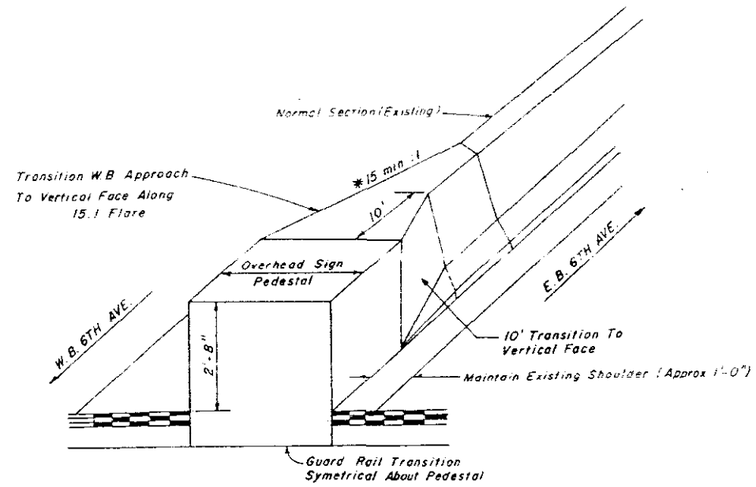
NOT TO SCALE

COLORADO
DEPARTMENT OF HIGHWAYS
DIV. OF HIGHWAYS
FORM NO. 1261
REV. 1984

AS CONSTRUCTED					
NO REVISIONS 7-21-87	REVISED	VOID	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
			VIII	COLO.	IR 25-2(191)	40	342



NOTE: Cost of Guard Rail Transitions Around Sign Bridge Pedestals to be Included in the Cost of the Pedestal.

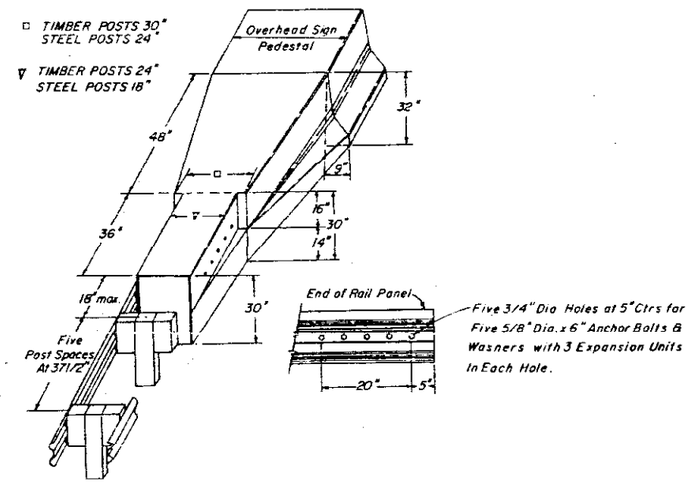


DETAIL OF GUARD RAIL TYPE 4 TRANSITION AROUND
W.B. SIGN BRIDGE PEDESTALS IN 6TH AVE. MEDIAN

SIGN NO. 36 STA. 80+70
SIGN NO. 44 STA. 73+79

DETAIL OF GUARD RAIL TYPE 4 TRANSITION AROUND
SIGN BRIDGE PEDESTALS IN I-25 MEDIAN * *

SIGN NO. 11 STA. 324+75
SIGN NO. 13 STA. 311+75



DETAIL OF GUARD RAIL TRANSITION AROUND E.B. SIGN
BRIDGE PEDESTAL IN 6TH AVE MEDIAN

SIGN NO. 1 STA. 41+00

* 15:1 FLARE RATE BASED ON A 55 MPH OPERATING SPEED

* * SIGN NO. 20 N.B. EXCLUDED

GUARD RAIL TRANSITION AND SIGN PEDESTAL DETAILS

NOT TO SCALE

AS CONSTRUCTED					
NO REVISIONS	REVISED	VOID	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
			VIII	COLO.	IR25-2(191)	41	242

UTILITIES WITHIN THIS PROJECT

Mountain Bell
Public Service Company --Gas
Public Service Company --Electric Distribution
Denver Wastewater Management Division
Metropolitan Denver Sewage Disposal # 1
Denver Water Department

RIVER

SOUTH PLATTE

ALCOTT ST.

W 6th Ave.

Remove Inlet And Connect Existing Culverts With Concrete Collar (See Detail)

Remove Inlet Grate And Install Manhole Ring And Cover (See Details of Modify Inlet)

Abandoned

Exist Capped or Plugged Inlets

Plug Inlet

Remove Inlet And Plug 24" Culvert Each Side of Pier

Cap 6" Cross Main And Pour Thrust Block **

Plug Culvert

Plug 18" Culvert

Cap 6" Cross Main And Pour Thrust Block **

6" Water main to be Perolted around Footings for piers 9E and 9G

608
Sta. 607+72.00
Offset 93' Lt
Req'd. Manhole with a 24"x65' R.C.P. Culvert from Inlet 607(Rt.)

To Be Abandoned

607
Sta. 607+66.00 Offset 25' Lt
Req'd. Inlet Type 'C' with a 36"x 21' Welded Steel Pipe (Jacked) (See Detail) and 24"x 21' Plastic Pipe Sewer (Polyvinyl Chloride) from Existing Manhole (Lt.)

278
Sta. 278+48.00 I 25 CL
Req'd. Inlet Type 'C' with a 30"x 53' Welded Steel Pipe (Jacked) (See Detail) and 18"x 153' Plastic Pipe Sewer (Polyvinyl Chloride) to Inlet 607 Lt.
Connect Existing 18" RCP to Inlet 278

** See General Notes On Irrigation Summary Sheet

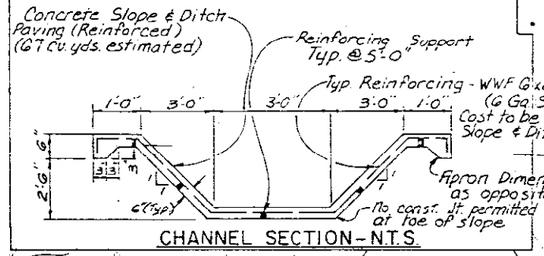
DRAINAGE AND UTILITY PLAN W. 6TH AVE.

ORIGINAL SCALE: 1" = 50'

AS CONSTRUCTED					
NO REVISIONS		REVISED	7-21-94	VOID	

FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR25-2(191)	42	242

* Channel Section to match inv. Elev. of 36" R.C.P. and to have 0.5% Slope. Existing ditch beyond End of new Channel to be graded to drain.



CHANNEL SECTION - N.T.S.

Relocate Drainage Ditch, See Channel Section Detail This Sheet.

RAMP H

RAMP E

Plug Inlet

Plug Culvert

1504

To be Abandoned

Future Ramp G

Begin Channel Section at Outlet of 36" R.C.P.*

Exist Capped or Plugged Inlets

Abandoned

OSAGE ON RAMP

W. 5th Ave.

Exist Capped or Plugged Inlets

To Be Abandoned

To Be Abandoned

Abandoned

Plug Existing Inlet

Abandoned

RARITAN WY.

(69) 23' x 36" RCP
1 36" RCES
Connect to existing 36" RCP, Grade to Existing ditch ℄

(1504) 22' x 18" RCP
1 18" RCES
Connect to existing 18" RCP, Grade to Existing ditch ℄

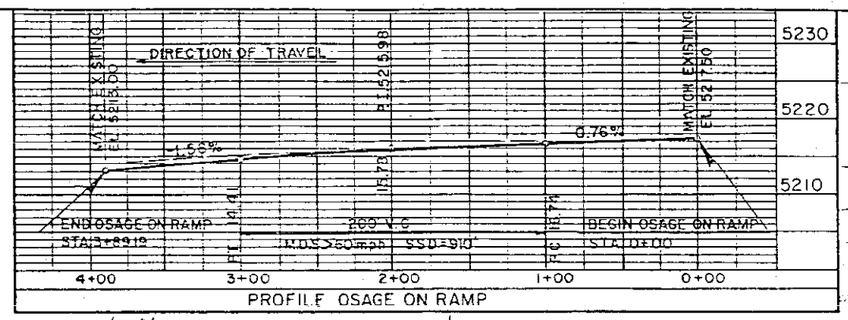
DRAINAGE AND UTILITY PLAN W. 6TH AVE.

ORIGINAL SCALE: 1" = 50'

DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS STATE OF COLORADO
DRM NO. 13A-1
9-73

AS CONSTRUCTED			
NO REVISIONS		REVISED 7-21-75	VOID

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR 25-2 (191)	43	242



(75)
Sta. 75+46.00 Offset 66' (Lt.)
Req'd. Inlet Type R (L=10'-0") (H=3'-0") with Connection to Existing 15" R.C.P. Culvert.

(901)
Req'd. Manhole (See Detail) (Ramp 'H' Sta. 900+91.43 Offset 51.22' Rt.) With a 39'x10" Concrete Pipe Sewer from Existing Manhole Rt., and a 279'x10" Concrete Pipe Sewer to Existing Manhole Lt. (See Details)

P.C. STA. 0+00.00 O-1 = match existing

BEGIN OSAGE ON RAMP
STA. 0+00.00 = 369.35' LT. OF STA. 78+21.09 ON U012-2(13)

END OSAGE ON RAMP
STA. 3+89.19 = 61.45' LT. OF STA. 76+54.09 ON U012-2(13)

P.T. STA. 1+21.02 O-1
P.C. STA. 1+81.35 O-2
P.T. STA. 3+89.19 O-2

P.C. STA. 70+56.75 S-4
P.I. STA. 72+60.16 S-4
P.T. STA. 74+63.34 S-4
P.T. STA. 75+32.91 S-5
P.I. STA. 77+03.74 S-5
P.T. STA. 78+74.97 S-5
P.C. STA. 80+69.12 S-6
P.I. STA. 82+41.87 S-6
P.T. STA. 84+14.75 S-6

ENTRANCE NOSE OSAGE ON RAMP
STA 3+20.98 OSAGE RAMP
OFFSET 22.00' LT.
STA. 77+27.85 6TH AVE
OFFSET 62.00' LT.

P.C. STA. 901+70.53 G-1
P.T. STA. 903+30.72 H-1
STA. 900+00.00 RAMP G
STA. 902+92.53 RAMP H
OFFSET 15.12' LT.
P.I. STA. 901+89.10 H-1
P.C. STA. 900+39.86 RAMP H
STA. 73+78.91 61th Ave.
OFFSET 57.53' LT.

Permanent Easement
To be Relocated
Abandoned
Remove Inlet
Plug Inlet
Structure F-16-PF
Structure F-16-PT
OSAGE ST.
W. 6TH AVE
RARITAN WY.
Paved Parking

6th. Avenue		
	Curve S-5	Curve S-6
P.C.	689795.572N 2138364.679E	689790.870N 2138900.248E
P.I.	689810.834N 2138534.320E	689781.423N 2139072.737E
P.T.	689801.542N 2138705.393E	639734.920N 2139245.449E
Δ	8°16'39"	4°17'43"
D	2°25'37"	1°14'33"
R	2360.79'	4606.52'
L	341.06'	345.33'
T	170.83'	172.75'

DRAINAGE AND UTILITY PLAN AND PROFILE OSAGE ON RAMP

ORIGINAL SCALE 1"=50'

AS CONSTRUCTED			
NO REVISIONS 7-21-94	REVISED	VOID	

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR 25-2(191)	44	242

EXIT NOSE RAMP 'E'
STA. 602+40.50 OFFSET 36' RT.
STA. 710+08.51 RAMP 'F'
OFFSET 21' LT.

BEGIN STRUCTURE F-16-OG
STA. 602+78.57

SOUTH PLATTE RIVER

W. 6TH AVE.

I-25

SURVEY CONTROL LINE RAMP 'E'

P.C.C. STA. 606+78.96 E-2

To Be Abandoned

Abandoned

RAMP 'B' (FUTURE)

P.T. STA. 614+44.21 E-2

194.84' TAPER

HIGH MAST LIGHT-POLE #2 (EXISTING)

Remove Inlet & Culvert

Cap Water

RAMP 'G' (FUTURE)

To Be Abandoned

ENTRANCE NOSE RAMP 'H'
STA. 913+40.05 RAMP 'H'
OFFSET 20' LT. =
STA. 617+12.94 RAMP 'E'
OFFSET 31' RT.

Plug Inlet

Plug Culvert

VALLEJO ST.

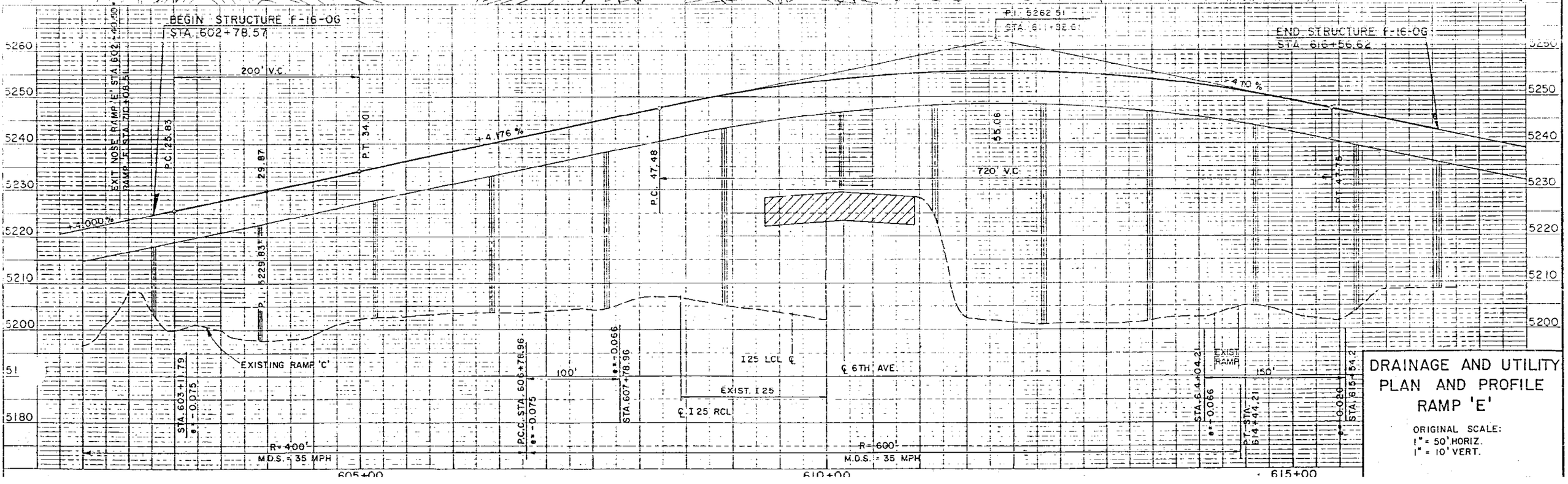
END STRUCTURE F-16-OG
STA. 616+56.62

W. 7TH AVE.

UMATILLA ST.

SURVEY CONTROL LINE RAMP 'H'

Abandoned



DRAINAGE AND UTILITY PLAN AND PROFILE RAMP 'E'

ORIGINAL SCALE:
1" = 50' HORIZ.
1" = 10' VERT.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
PROJECT NO. IR 25-1(191)
SHEET

AS CONSTRUCTED			
NO REVISIONS		REVISED	VOID

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR 25-2(191)	45	242

SOUTH PLATTE RIVER

Mt. Bell M.H.

W.M.H.

Mt. Bell M.H.

Meter Vault

W.V.

Water M.H.

ZUNI ST.

I25 RCL

I25 LCL

Remove Inlet

(254)

Sta. 253+48.00 I25LCL Offset 30.40'(Lt.)
Req'd. Inlet Type R (L=10'-0") (H=3'-9")
with a 15"x10" RCP Connection to
Existing Culvert with Concrete Collar.
(See Detail)

(1806)

Sta. 1806+45.00 Offset 43'(Lt.)
Req'd. Inlet Type 13 (See Detail) with a
15"x 28' RCP Culvert to Existing
Manhole Rt.

Plug Inlet & Culvert

WYANDOT ST.

Remove Inlet

F.H.

(1807)

Sta. 1807+47.00 Offset 37'(Lt.)
Req'd. Inlet Type 13 (See Detail) with connection
to existing 10" RCP Culvert from Inlet (Rt.)

~~Modify Inlet (Adjust grate elev. to match pavement)~~

~~Modify Plug Existing Inlet~~

Remove Inlet and Culvert

(1808)

72" R.C.P.

24"

18"

15"

12"

10"

8"

6"

DRAINAGE AND UTILITY PLAN RAMP 'E' / I 25 NORTH BOUND

ORIGINAL SCALE 1" = 50'

AS CONSTRUCTED					
NO REVISIONS	7-21-89	REVISED		VOID	

FEDERAL ROAD REGION NO	DIVISION	PROJ NO	SHEET NO	TOTAL SHEETS
VIII	COLORADO	IR25-2(191)...	46	242

Structure Excavation

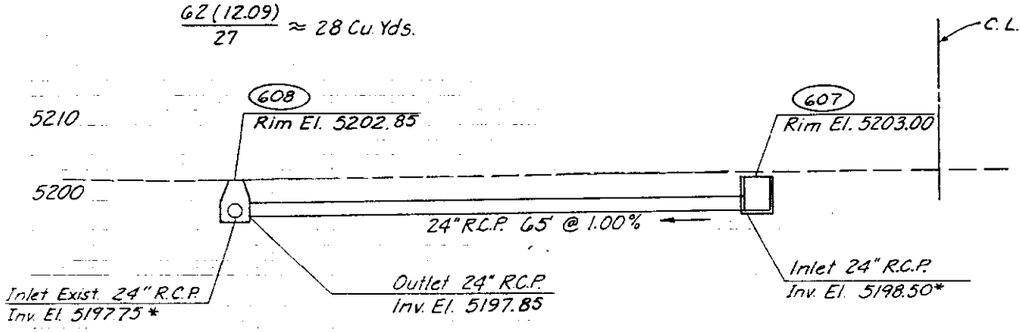
$\frac{62(5)(6.17)}{27} \approx 71$ Cu. Yds.

Structure Backfill

$\frac{62(13.85)}{27} = 32$ Cu. Yds.

Embankment

$\frac{62(12.09)}{27} \approx 28$ Cu. Yds.



608
Req'd. 4'ϕ Precast Manhole,
Type Slab Base (H=5'-1")
(Ramp E Sta. 607+72.00 Offset 93.00' Lt.)
with a 24"x65' R.C.P. Culvert from
Inlet 607 (Rt.).

* Elevation approximate only. Actual Elevation and final adjustments to be made during construction as directed by the Engineer.

Structure Excavation

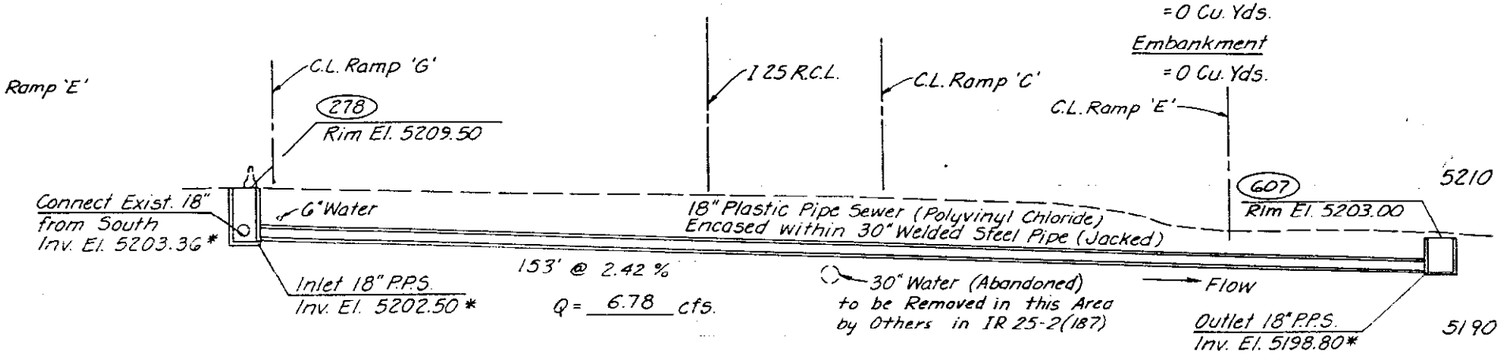
= 0 Cu. Yds.

Structure Backfill

= 0 Cu. Yds.

Embankment

= 0 Cu. Yds.



278
Req'd Type 'C' Inlet (H=7'-0")
(℄ I25 Sta. 278+48.00)
with a 30"x153' Welded Steel Pipe (Jacked)
(See Detail) and a 18"x153' Plastic Pipe
Sewer (Polyvinyl Chloride) from Inlet 607 (Lt.).

Structure Excavation

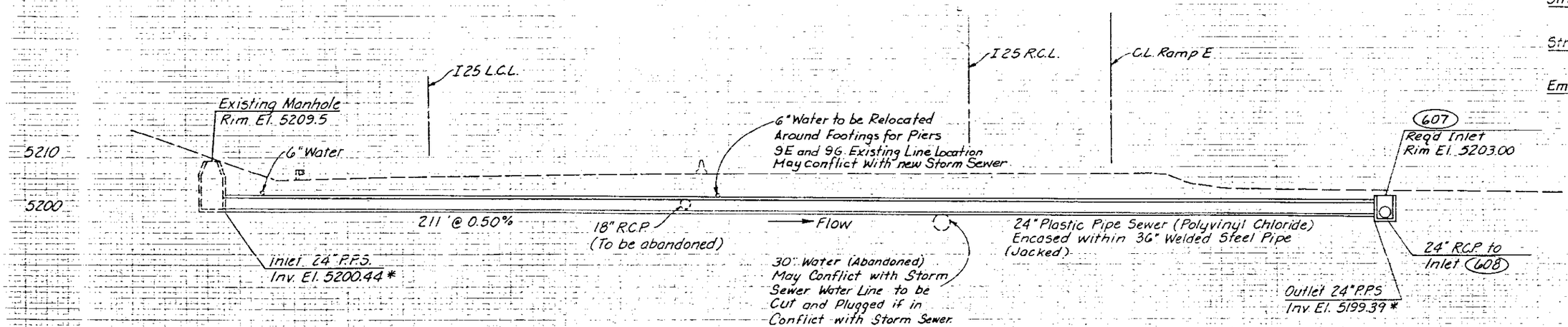
= 0 Cu. Yds.

Structure Backfill

= 0 Cu. Yds.

Embankment

= 0 Cu. Yds.

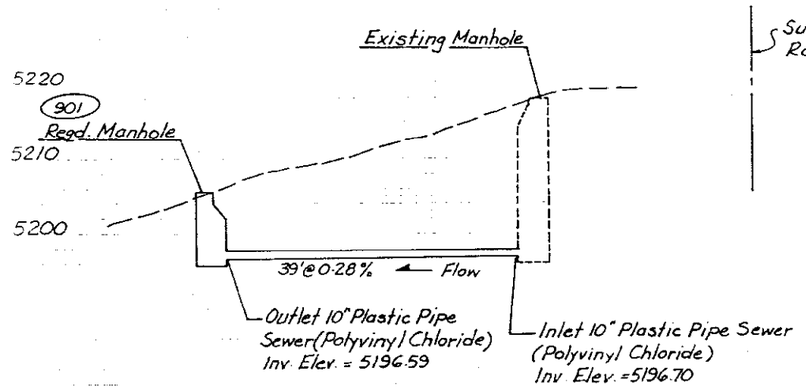


607
Req'd Type 'C' Inlet (H=4'-6")
(Ramp E Sta. 607+66.00 Offset 25' Lt.)
with a 36"x211' Welded Steel Pipe (Jacked)
(See Detail) and a 24"x211' Plastic Pipe
Sewer (Polyvinyl Chloride) from Existing
Manhole (Lt.).

DRAINAGE AND SEWER CROSS SECTIONS

1

AS CONSTRUCTED	FEDERAL ROAD REGION NO	DIVISION	PROJ NO	SHEET NO	TOTAL SHEETS
NO REVISIONS 7-21-77 REVISED ☐ VOID ☐	VIII	COLORADO	IR25-2(191)	47	242



Survey Control Line
Ramp "H"

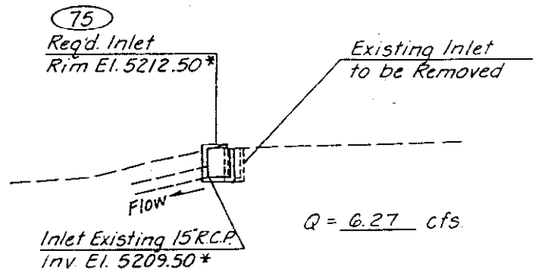
Structure Excavation
$\frac{36(15)(4)}{27}$ = 80 cu. yds.

Structure Backfill
$\frac{36(8.45)}{27}$ = 11 Cu. Yds.

Embankment
$\frac{36(12.5)(4)}{27}$ = 67 Cu. Yds.

Req'd. 39'x10" Plastic Pipe Sewer (Polyvinyl Chloride) Existing Manhole to Manhole 901 Lt. (See Details)

Note: For Type R Inlets; Rim Elevation is to Top of Manhole. ℄ of Inlet is to Match ℄ of New Curb and Gutter. Station Offset is to ℄ of Inlet.



Q = 6.27 cfs

75
Req'd. Inlet Type R (L=10'-0")(H=5'-0")
(C.L. 6th Ave. Sta. 75+46.00 Offset 66' Lt.)
with Connection to Existing 15" R.C.P.

Structure Excavation
= 0 Cu. Yds.

Structure Backfill
= 0 Cu. Yds.

Embankment
= 0 Cu. Yds.

5220

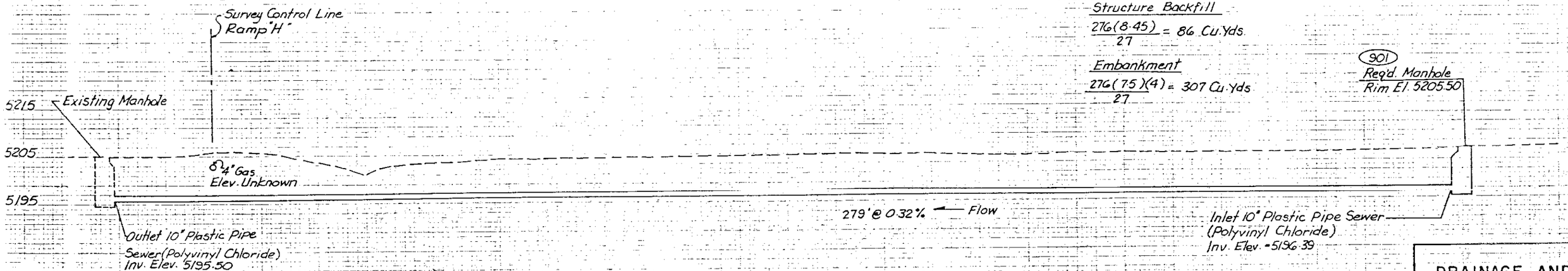
5210

*Elevation approximate only. Actual elevation and final adjustments to be made during construction as directed by the Engineer.

Structure Excavation
$\frac{276(10)(4)}{27}$ = 409 Cu. Yds.

Structure Backfill
$\frac{276(8.45)}{27}$ = 86 Cu. Yds.

Embankment
$\frac{276(7.5)(4)}{27}$ = 307 Cu. Yds.



901
Req'd. Manhole (See Detail)(H = 9'-1")
(Ramp "H" Sta. 900+91.43 Offset 51.22' Rt.)
With a 279'x10" Plastic Pipe Sewer
(Polyvinyl Chloride) to Existing Manhole Lt.
(See Details)

DRAINAGE AND SEWER CROSS SECTIONS

2

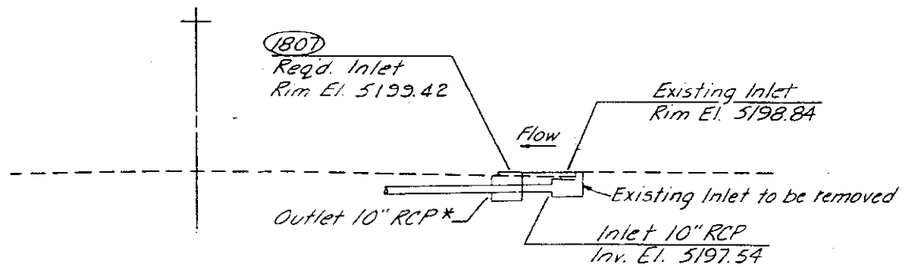
AS CONSTRUCTED					
NO REVISIONS		REVISED	7-21-[illegible]	VOID	

FEDERAL ROAD REGION NO	DIVISION	PROJ NO	SHEET NO	TOTAL SHEETS
VIII	COLORADO	IR 25-2(191)	48	242

Structure Excavation
= 0 Cu. Yds.

Structure Backfill
= 0 Cu. Yds.

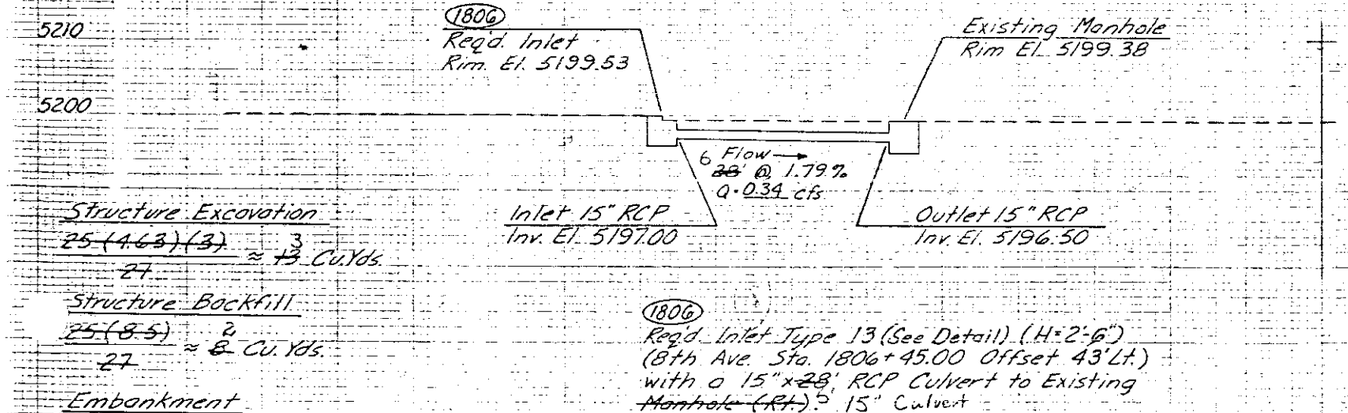
Embankment
= 0 Cu. Yds.



Q = 0.34 cfs.

(1807)
Reqd. Inlet Type 13 (See Detail) (H-2'-2")
(8th Ave. Sta. 1807+47.00 Offset 37' Lt.)
with a Connection to 10" RCP from existing Inlet (Rt.).

* Elevation approximate only. Actual Elevation and Final Adjustment to be made during Construction as directed by the Engineer.



Structure Excavation
$\frac{25(4.63)(3)}{27} \approx$ ~~13~~ 3 Cu Yds.

Structure Backfill
$\frac{25(8.5)}{27} \approx$ ~~8~~ 2 Cu. Yds.

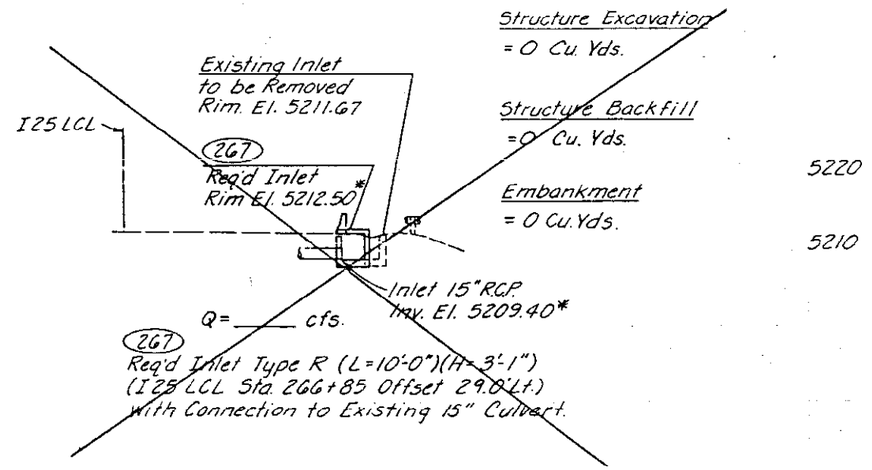
Embankment
= 0 Cu. Yds.

(1806)
Reqd. Inlet Type 13 (See Detail) (H=2'-6")
(8th Ave. Sta. 1806+45.00 Offset 43' Lt.)
with a 15"x~~28~~' RCP Culvert to Existing ~~Manhole (Rt.)~~ 15" Culvert

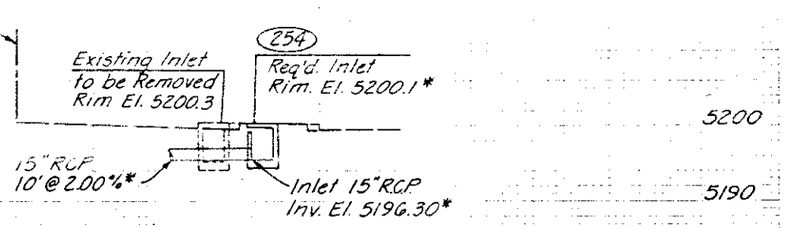
Structure Excavation
= 0 Cu. Yds.

Structure Backfill
= 0 Cu. Yds.

Embankment
= 0 Cu. Yds.



(267)
Reqd Inlet Type R (L=10'-0")(H=3'-1")
(I25 LCL Sta. 266+85 Offset 29.0 Lt.)
With Connection to Existing 15" Culvert.



(254)
Reqd. Inlet Type R (L=10'-0" X H=3'-9")
(I25 LCL Sta 253+48.0, Offset 30.4' Lt.)
with a 15"x10' R.C.P. Connection to Existing Culvert with Concrete Collar.

Structure Excavation
$\frac{8.5(4.25 \times 3.75)}{27} \approx$ 5 Cu Yds.

Structure Backfill
$\frac{8.5(10.15)}{27} \approx$ 3 Cu Yds.

Embankment
$\frac{8.5(3.70)}{27}$ = 1 Cu. Yd.

NOTE:

For Type R Inlets;
Rim Elevation is to Top of Manhole, ℄ of Inlet to Match ℄ of New Barrier or Curb and Gutter, and Station Offset is to ℄ and ℄ of Inlet.

For Type 13 Inlets;
Rim Elevation is to Top of Curb, ℄ of Inlet to Match ℄ of New Curb and Gutter, and Station Offset is to ℄ of Inlet.

DRAINAGE AND SEWER CROSS SECTIONS

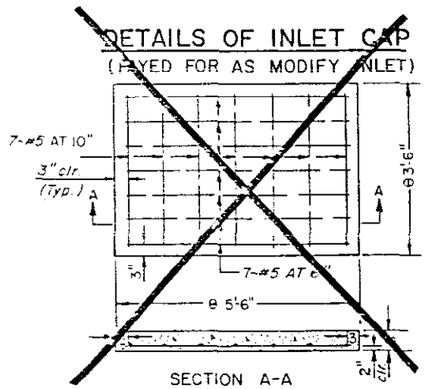
3

COLORADO
DEPARTMENT OF HIGHWAYS
DIV. OF HIGHWAYS
FORM NO. 1261
REV. 1964

AS CONSTRUCTED					
REVISIONS 7-21-89 REVISED [ ] VOID [ ]	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
	VIII	COLO.	IR 25-2(191)	49	242

DETAILS OF INLET CAP

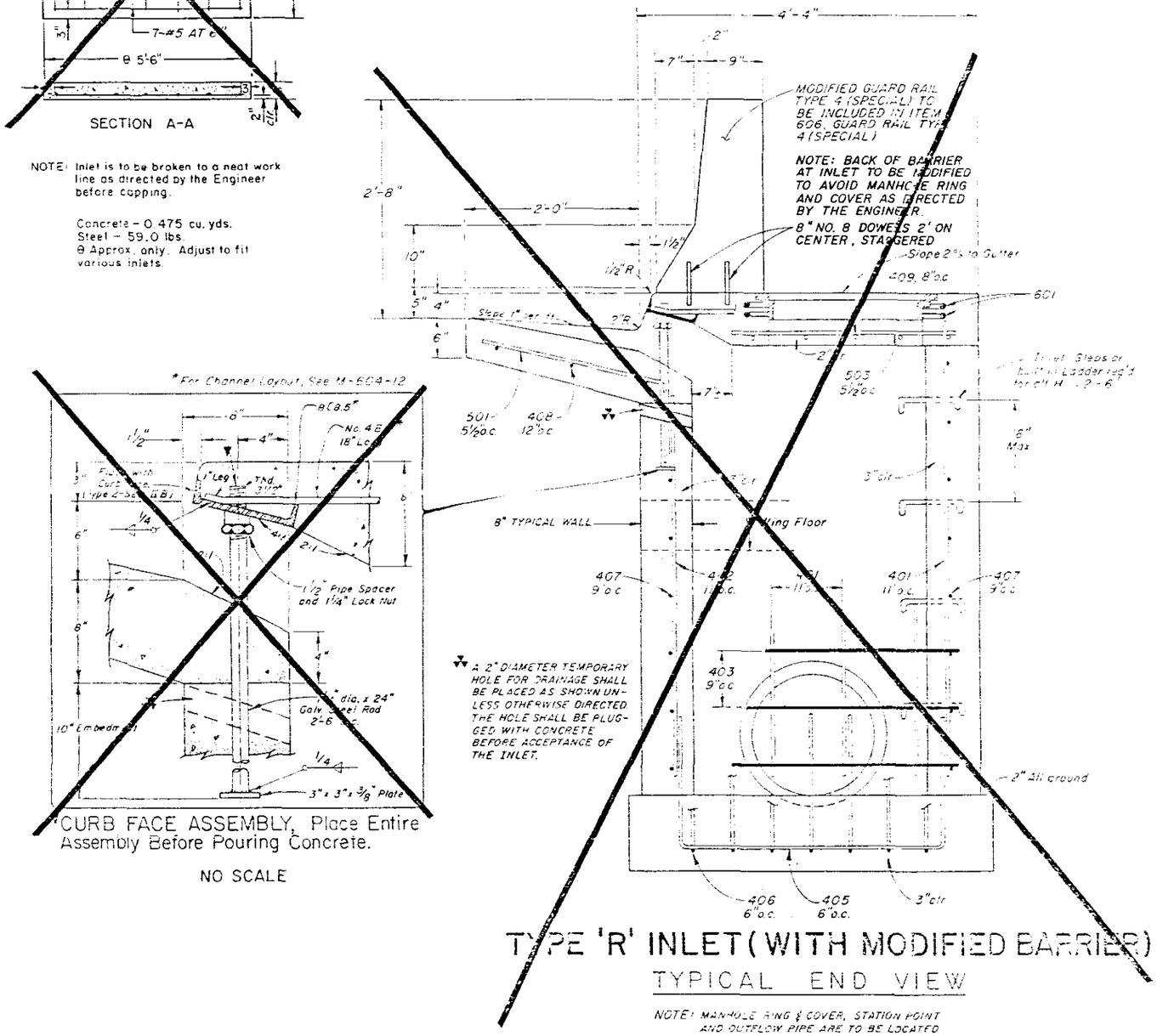
(REVISED FOR AS MODIFY INLET)



SECTION A-A

NOTE: Inlet is to be broken to a neat work line as directed by the Engineer before capping.

Concrete - 0.475 cu. yds.
Steel - 59.0 lbs.
Ø Approx. only. Adjust to fit various inlets.



A 2" DIAMETER TEMPORARY HOLE FOR DRAINAGE SHALL BE PLACED AS SHOWN UNLESS OTHERWISE DIRECTED. THE HOLE SHALL BE PLUGGED WITH CONCRETE BEFORE ACCEPTANCE OF THE INLET.

*CURB FACE ASSEMBLY, Place Entire Assembly Before Pouring Concrete.

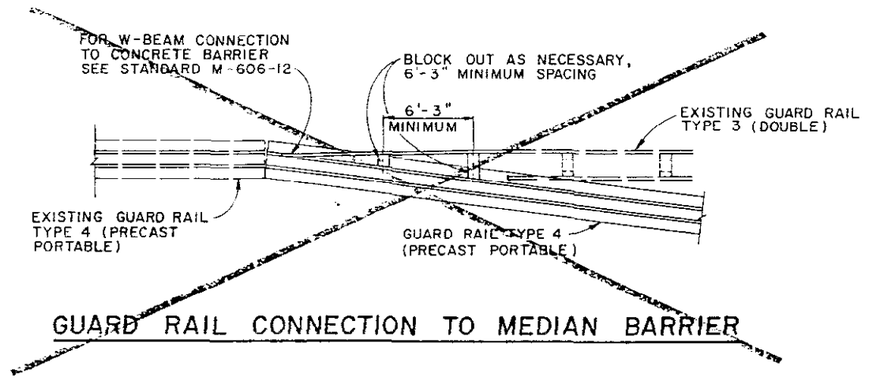
NO SCALE

TYPE 'R' INLET (WITH MODIFIED BARRIER)

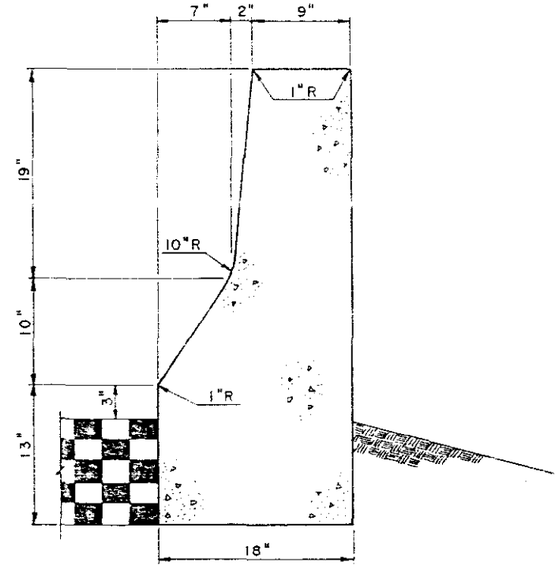
TYPICAL END VIEW

NOTE: MANHOLE RING & COVER, STATION POINT AND OUTFLOW PIPE ARE TO BE LOCATED AT THE SAME END OF THE INLET.

NO SCALE



GUARD RAIL CONNECTION TO MEDIAN BARRIER

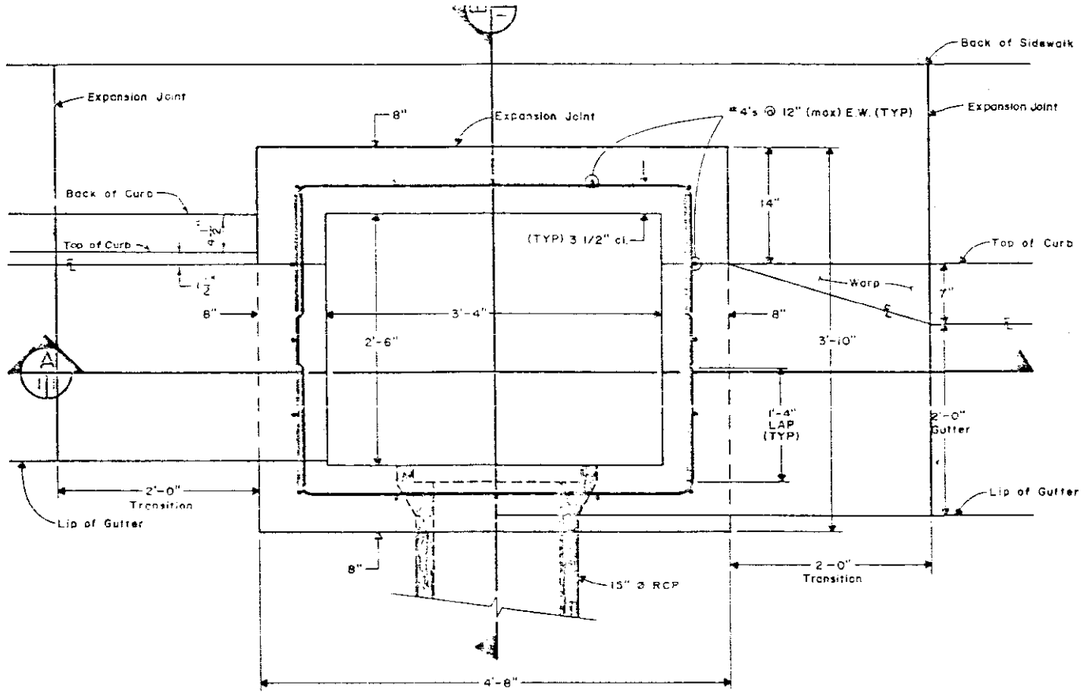


DETAIL FOR GUARD RAIL TYPE 4 SPECIAL

NOTE: GUARD RAIL TYPE 4 SPECIAL TO RECEIVE LIGHT COLORED STRUCTURAL CONCRETE COATING WHERE INDICATED ON PLANS OR AS DIRECTED BY THE ENGINEER COST TO BE INCLUDED IN THE WORK.

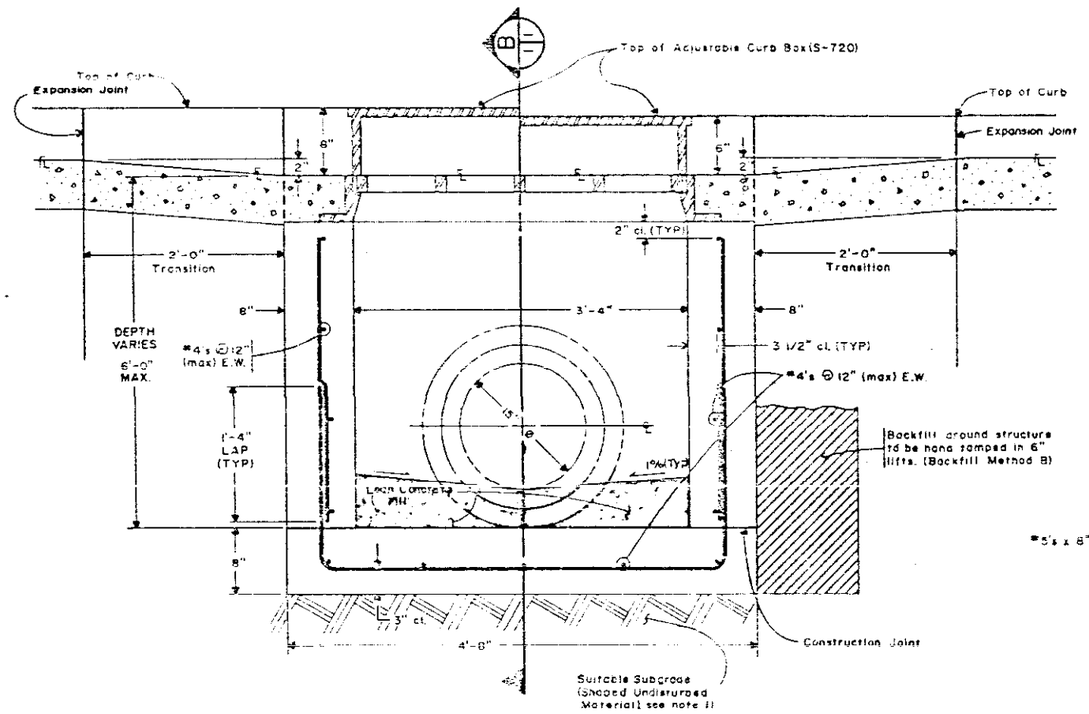
DRAINAGE AND BARRIER DETAILS

NOT TO SCALE



Vertical Curb & Gutter — PLAN VIEW — Comb. Curb, Gutter & Sidewalk

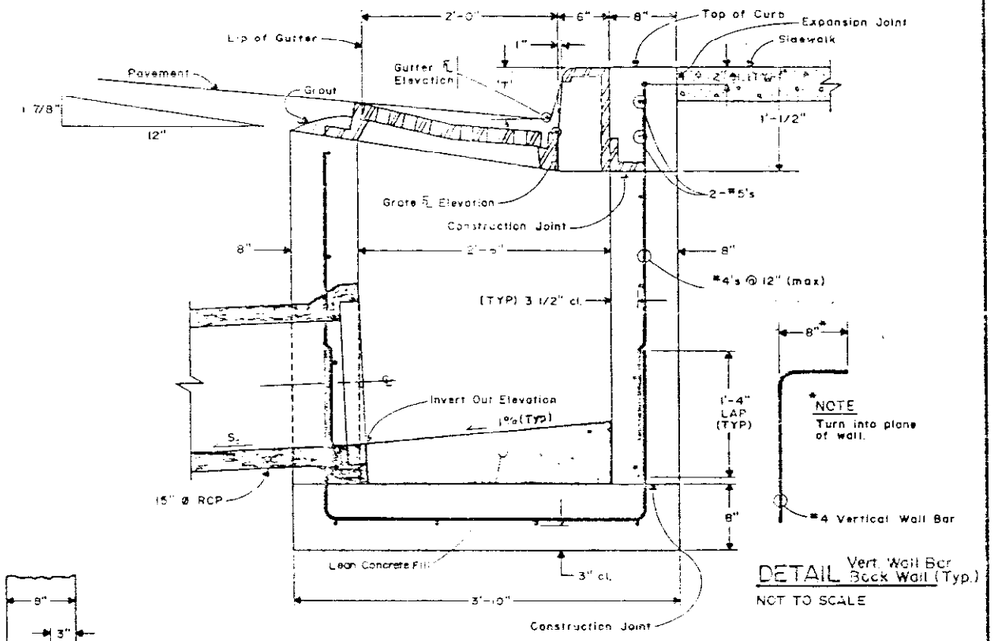
Scale: 1"=1'-0"



A SECTION

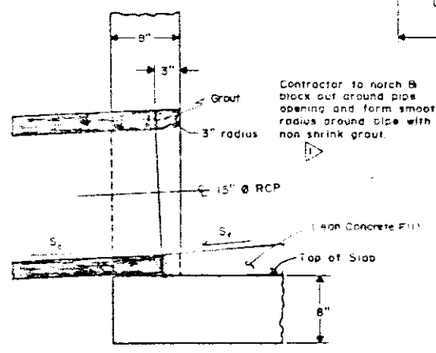
Scale: 1"=1'-0"

See Standard Detail S-720 For Frame, Grate & Adjustable Curb Box Details.



DETAIL Vert. Wall Bar Back Wall (Typ.)

NOT TO SCALE



Contractor to notch & block out around pipe opening and form smooth radius around pipe with non shrink grout.

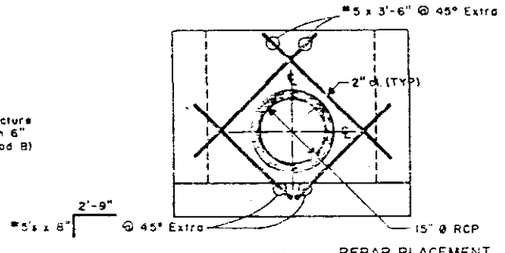
DETAIL CONNECTOR OUTLET (OPTIONAL)

Scale: 1"=1'-0"

B SECTION

Scale: 1"=1'-0"

"T"=6" for 6" Vertical Curb & Gutter
"T"=5" for Combination Curb & Gutter & Sidewalk
Drop from Gutter ℄ elevation to Grate ℄ elevation (transition) is 2".



DETAIL REBAR PLACEMENT AROUND CONNECTOR

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

NOTES

1) For payment purposes, inlet structures shall also include 2'-0" curb & gutter transition section at each end of inlet plus sidewalk sections where required behind inlet structure and transition sections.

2) Floor slope may be poured monolithic with base.

3) S_c = Slope of Connector = 1% min.

4) Unless otherwise specified on the drawings or otherwise approved, all #13 inlets shall be constructed with an adjustable C.I. curb box (S-720).

5) Design conditions for inlet allows depths of 6' (max.). For inlets more than 6 feet in depth, shop drawings and design analysis shall be submitted for approval.

6) All reinforcing steel shall be ASTM, A-615, Grade 60 deformed bars. Diameter of bend measured on the inside of the bar shall be a minimum of 6 bar diameters.

7) All work shall conform to AASHTO "Standard Specifications for Highway Bridges" 1983 Edition.

8) Concrete shall have a 28 day strength of 4000 psi.

9) Sub-grade shall be a gradation equal to Class B Bedding compacted to 95% maximum dry density. AASHTO designation T-180.

10) No formwork shall remain inside structure when complete.

11) Sub-grade shall be shaped undisturbed material or overexcavated and backfilled with Class B Bedding material.

12) Splicing of reinforcing steel shall be permitted only where detailed in drawings.

▷13) Inlet walls shall be formed both inside and outside. Casting of sidewalls against earth is not permitted.

▷14) Lean Concrete Fill to be f'_c = 2000 psi.

Submitted by Joseph [illegible] 9/30/05
Chief Design Engineer — Date

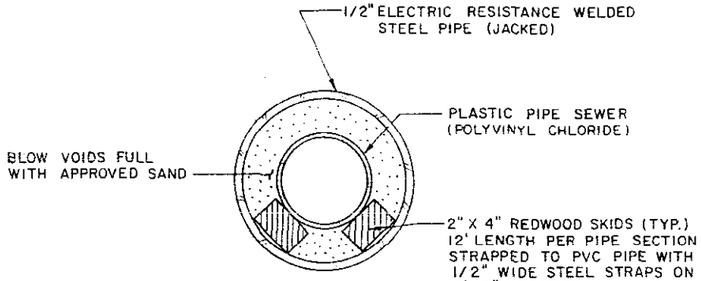
Recommended by [illegible] 9/30/15
Assistant Director of Engineering — Date

REVISED		
No.	By	Date
▷	DLS	3-11-86

CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS
WASTEWATER MANAGEMENT DIVISION

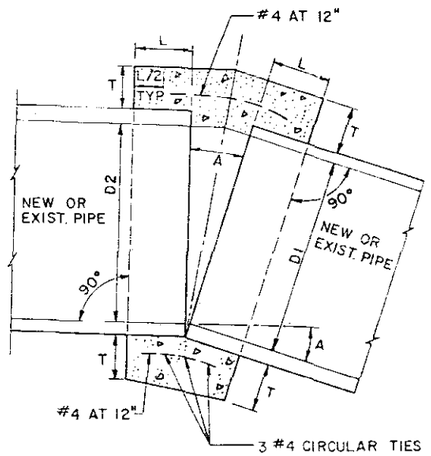
STANDARD DETAILS
for
SINGLE NO. 13 OPEN THROAT INLET
with
ADJUSTABLE CURB BOX

AS CONSTRUCTED	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS 7-21-25 REVISED VOID	VIII	COLO.	IR25-2(191)	51	342



JACKING DETAIL WELDED STEEL PIPE

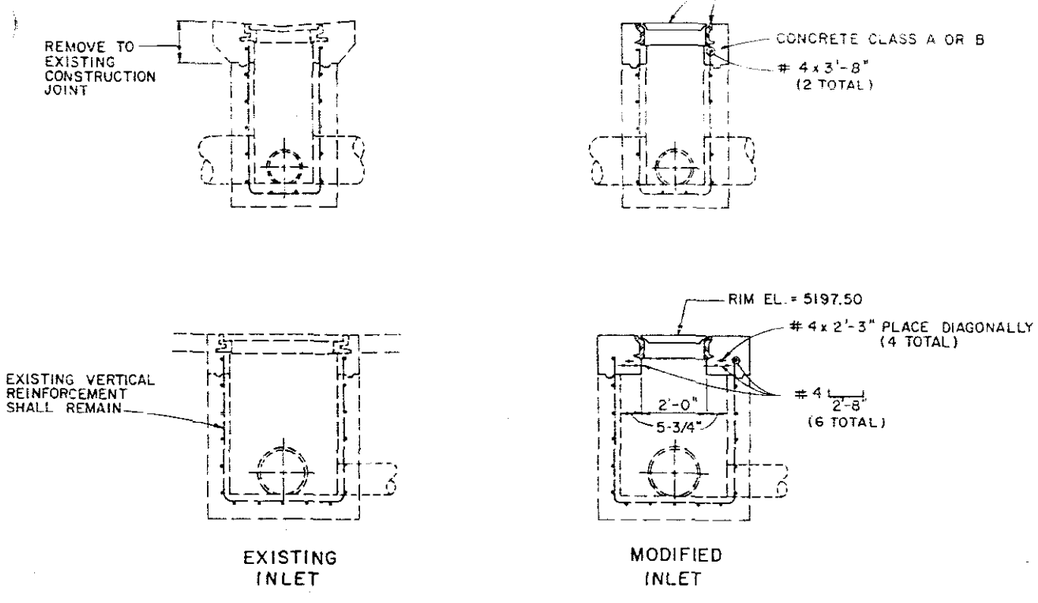
ALL MATERIALS SUBSIDIARY TO WELDED STEEL PIPE (JACKED) AND PLASTIC PIPE SEWER (POLYVINYL CHLORIDE)



D	L	T
12"	1.0'	4"
18"	1.0'	5"
24"	1.0'	6"
36"	1.5'	8"
48"	1.5'	10"
57"	1.5'	10"
60"	1.75'	11"
66"	1.75'	11"

CONCRETE COLLAR DETAIL

TYPICAL WHERE PROPER JOINT IS NOT OBTAINED. NOT PAID FOR SEPARATELY



DETAILS OF MODIFY INLET

GENERAL NOTES:

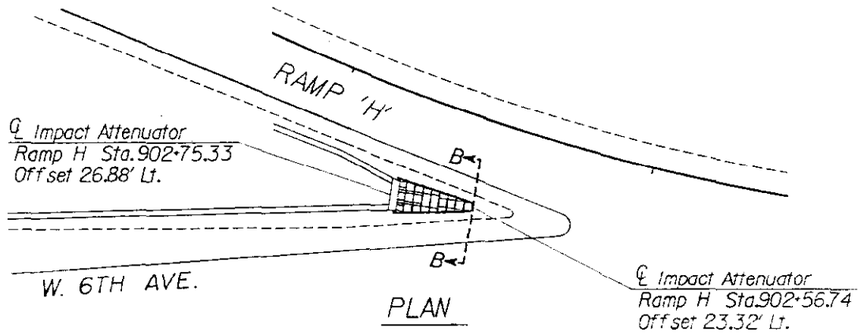
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS APPLICABLE TO THE PROJECT.
2. ALL REINFOREMENT SHALL HAVE MINIMUM 2" CLEAR.
3. THE EXISTING INLET GRATE SHALL REMAIN THE PROPERTY OF THE STATE OF COLORADO.
4. SET MANHOLE RING AND COVER TO THE ELEVATION SHOWN OR AS DIRECTED BY THE ENGINEER.

CONCRETE COLLAR, MODIFY INLET AND JACKING DETAILS

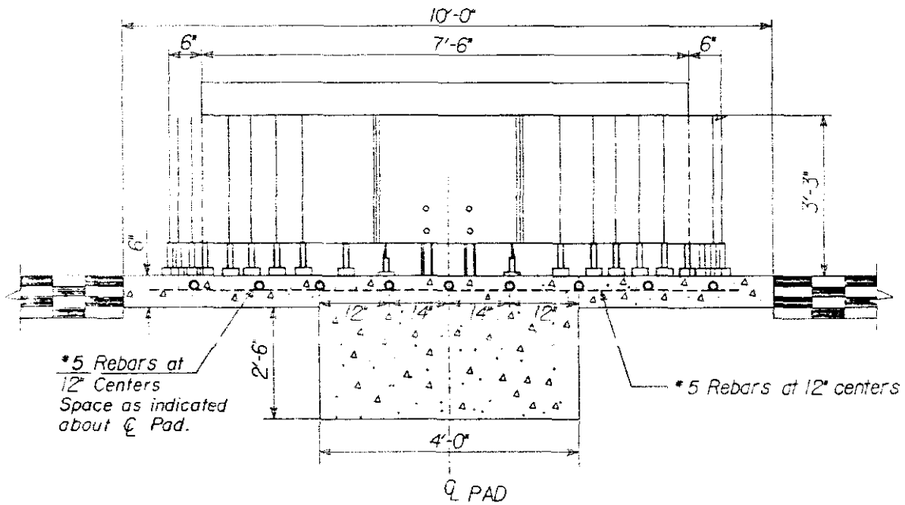
NOT TO SCALE

OF COLORADO
DEPARTMENT OF HIGHWAYS
ON OF HIGHWAYS
FORM NO. 126
EB. 1984

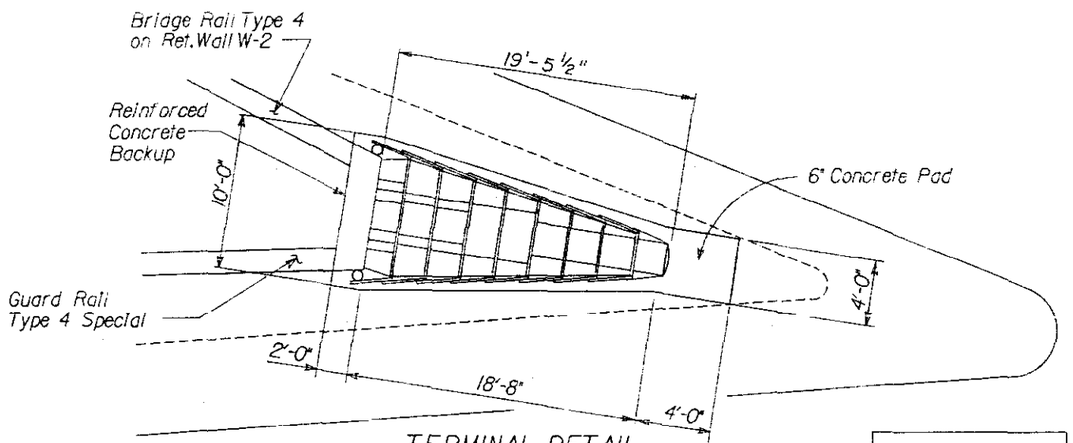
AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS ☐	REVISED ☐	VOID ☐	VIII	COLO.	IR 25-2(191)	52	



PLAN



SECTION B-B



TERMINAL DETAIL
(HEX-FOAM SANDWICH SYSTEM)

Energy Absorption Systems, Inc.
Model No. 209800H8S "WIDE"
or approved equal

55 MPH DESIGN
8 BAYS
6.0 G's

IMPACT ATTENUATORS

NOT TO SCALE

AS CONSTRUCTED					
NO REVISIONS 7-2-85	REVISED		VOID		

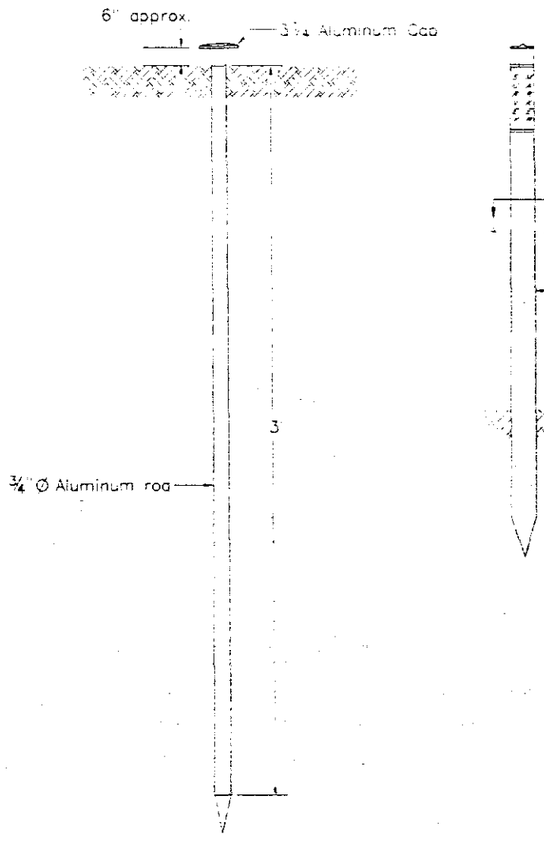
FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
VIII	COLO.	IR25-2(191)	53

REVISIONS	

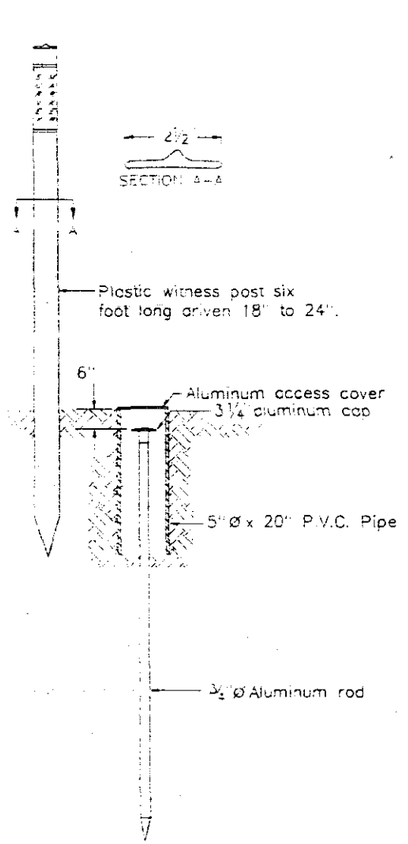
CAP TYPE	MONUMENT TYPE					
	1	2	3	4	5	6
REFERENCE	X	X	X	X	X	
BCN	X		X			
CONTROL		X		X*		
ALIQUOT CORNER						X

This Table shows which Cap Types are intended for which Monument Types.

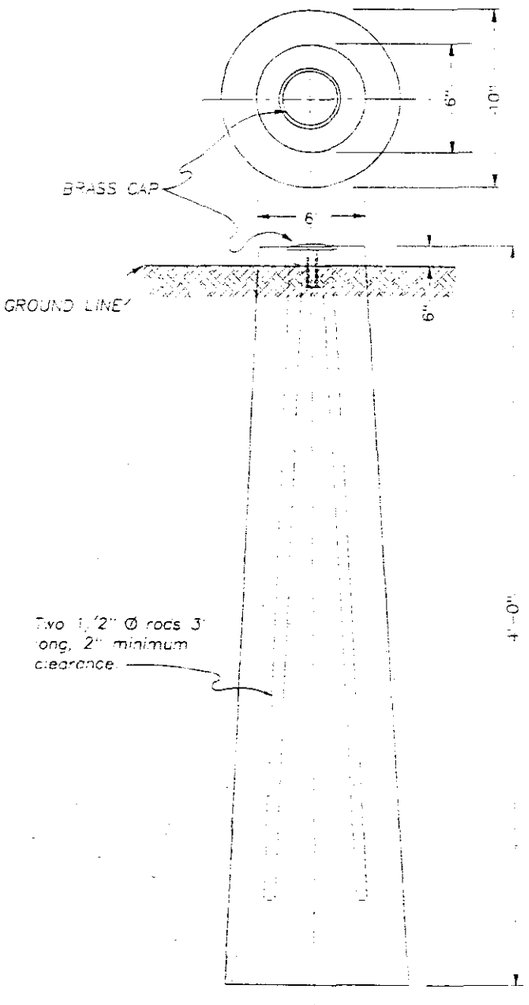
* Brass control cap will not be available until sometime in 1988.



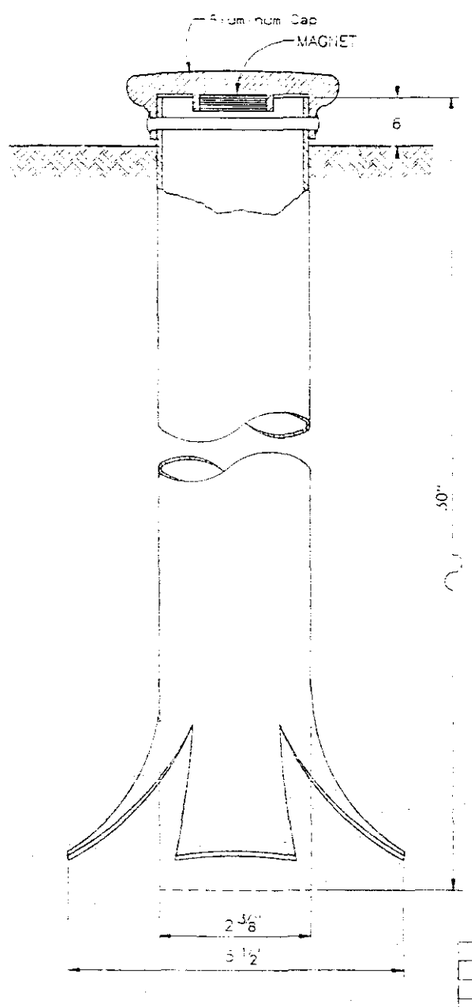
TYPE 1 MONUMENT



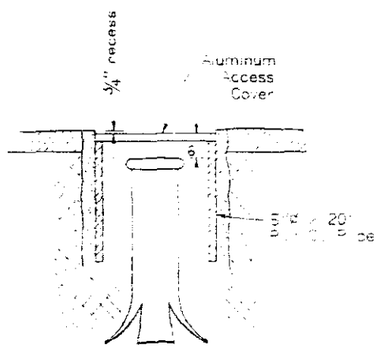
TYPE 2 MONUMENT



TYPE 3 MONUMENT



TYPE 6 MONUMENT



TYPE 6 MONUMENT
INSTALLED IN ROADWAY
MONUMENT BOX

STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
STATE OF COLORADO

SURVEY MONUMENTS

APPROVED BY: STAFF DESIGN ENGINEER
DATE:

STANDARD PLAN NO.

SHEET 1 OF 2

DATE REVISED

AS CONSTRUCTED	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
NO REVISIONS 7-21-59 REVISED [ ] VOID [ ]	VIII	COLO.	IR 25-2(191)	54

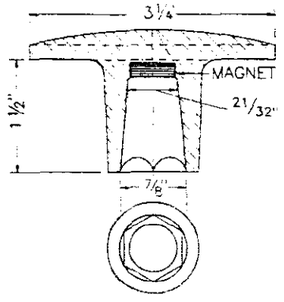
REVISIONS		

REFERENCE MONUMENT CAP

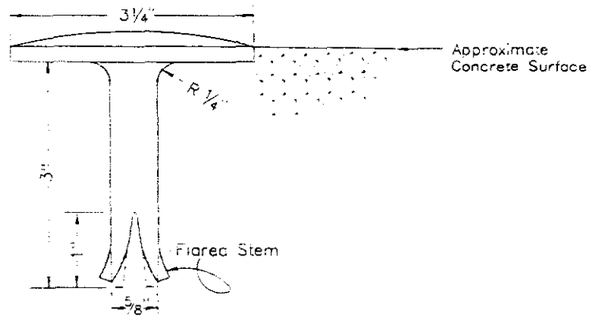
ROW MONUMENT CAP

CONTROL MONUMENT CAP

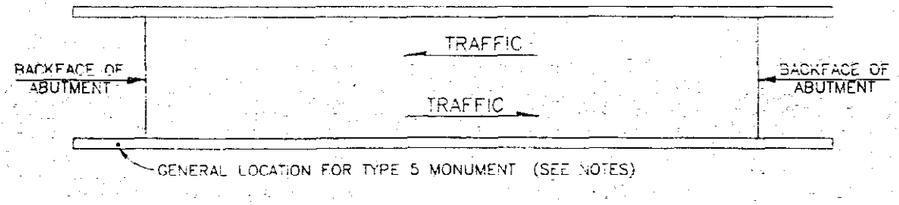
ALIQUOT CORNER



ALUMINUM CAP
USED WITH TYPES 1 AND 2
(Threaded Cap is also available)



BRASS CAP
USED WITH TYPES 3, 4 AND 5



ALUMINUM DRIVEN MONUMENTS

1. Monuments are installed by attaching a self-locking tip to one end of a rod section and the driving adapter to the other end. The rod section is driven by an eight pound or heavier hammer. A power adapter is also available for use with air or gasoline powered jack hammers.

2. Type 1 monuments require one three foot section of rod. Type 2 monuments are driven to refusal by threading additional sections onto the first. Rods are stocked in one and three foot lengths. A driven or threaded cap may be used with the rod sections. The driven cap may be necessary if a Type 2 monument is driven to refusal and then cut off to get a six inch depth below grade. A neoprene faced hammer or cushioning material should be used when tapping caps onto rods to avoid marring.

3. The plastic witness post for Type 2 monuments shall be driven within 10 feet of the monument unless otherwise directed by the Engineer. The post shall be visible from the highway. It shall not obstruct the sight line to other reference or control points. A protecting cap shall be placed over the top when hammer driven.

CONCRETE MONUMENTS

1. Monument shall be class A, B, or D concrete. The upper six inches shall be free of marks, and the top surface must be constructed to drain.

2. A Type 4 monument is the same as a Type 3 with a plastic witness post added.

BRIDGE (Type 5) MONUMENT

1. This monument is placed on the bridge abutment concrete. An alternative placement is vertically in the abutment wall or a pier if only an elevation reference is desired. Leave room for use of an elevation rod.

ALIQUOT CORNER (Type 6)

1. This monument may be used to monument an aliquot corner. The setting of this monument and recordation shall be done in accordance with the Colorado Revised Statutes, Title 38, Article 50 and 51. Also refer to the C.D.O.H. Survey Manual.

INSTALLATION IN PAVED ROADWAY

1. When placed in pavement, a six inch core is to be drilled and the hole augered out to accommodate 20 inches of PVC pipe. Installation in pavement will normally be used only to preserve an aliquot corner, but in special cases may also be desirable for Type 1 monuments.

GENERAL NOTES

1. A reference cap is used to monument any point with a more permanent and accurate mark than a stake. The cap shall be stamped with appropriate identification.

2. A ROW monument is a required monument placed along the highway ROW line according to state law. The land surveyor's number, ROW project number and point number shall be stamped.

3. A minimum of two control points (Type 2 or 4) should be installed per project. These monuments shall be intervisible and spaced from 1/4 to 2 miles apart. The cap should be marked with highway number and milepost to the nearest tenth.

STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
STATE OF COLORADO

SURVEY MONUMENTS

APPROVED BY: STAFF DESIGN ENGINEER
DATE:
STANDARD PLAN NO.
SHEET 2 OF 2
DATE REVISED

AS CONSTRUCTED

NO REVISIONS ☐ REVISED 7-21-23 VOID ☐

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	55	242

DESIGN
DATE

GRADING PLAN AND SEEDING LIMITS

G-1

50 0 50 100
scale ORIGINAL SCALE feet

INTERSTATE 25

WEST 6th AVENUE

H.B.P. Slope Paving

RAMP 'J'

5200

Top soil and ~~Native Seed~~
~~All Disturbed R.O.W. Within Limits of Construction~~

No Topsoil

Toe of Detour Fill Slope

3:1

DETOUR D

5210

PROPOSED CONTOURS

EXISTING CONTOURS

Topsoil

Limits of Lawn Seeding

Existing Drainage Structure

Existing Tree to Remain

5230

Topsoil

DETOUR C

No Topsoil

5215

5220

Limits of Native Seeding

NOTE.

Existing Trees to Remain

Location of Transplants

Topsoil Only Finish Graded Areas.

Topsoil And Native Seed All Disturbed R.O.W. Within Limits of Construction

AS CONSTRUCTED			
NO REVISIONS	REVISED	VOID	

FED ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	56	242

DESIGN
DATE

LANDSCAPE SUMMARY

L-1

SUMMARY OF PLANT QUANTITIES

COMMON NAME	BOTANICAL NAME	SIZE	QUANTITY
PURPLE ASH	~~FRAXINUS AUTUMN PURPLE~~	4 IN CALIPER	11

SUMMARY OF LANDSCAPING QUANTITIES

ITEM NO. & DESCRIPTION	PAY UNIT	QUANTITY	REMARKS
~~212 SEEDING (NATIVE)~~	~~ACRE~~	~~5.0 ACRES~~	SEE BELOW FOR SPECIES AND RATE
~~212 SEEDING (LAWN)~~	~~ACRE~~	~~2.6 ACRES~~	SEE BELOW FOR SPECIES AND RATE
212 SOD	SQUARE FOOT	~~100,000 SQ FT~~	
~~213 MULCHING (HYDRAULIC)~~	~~ACRE~~	~~7.6 ACRES~~	RATE = 1 TON/ACRE
~~213 EROSION BALES~~	~~EACH~~	~~50~~	FOR TEMPORARY EROSION CONTROL
~~214 PLANTS~~	~~EACH~~	~~11~~	SEE LIST OF PLANT QUANTITIES
~~215 TRANSPLANT TREE (3 TO 6 INCH)~~	~~EACH~~	~~1~~	T6
215 TRANSPLANT TREE (OVER 6 INCH)	EACH	~~13~~ K	

GENERAL NOTES

1. SEEDING (NATIVE) SHALL INCLUDE THE APPLICATION OF FERTILIZER AND NATIVE SEED COMPOSED OF THE SPECIES AND RATES LISTED BELOW. FERTILIZER FOR SEEDING (NATIVE) SHALL BE DIAMMONIUM PHOSPHATE WITH AN AVAILABLE NUTRIENT ANALYSIS OF 18N-46P-0K APPLIED AT A RATE OF 400 LBS./ACRE. THE FERTILIZER SHALL BE TILLED INTO THE TOP 4 INCHES OF SOIL (NOT HYDRO-FERTILIZED) PRIOR TO SEEDING. SEEDING (NATIVE) SHALL BE APPLIED USING HYDRAULIC SEEDING EQUIPMENT IN A SLURRY MIX THAT ENSURES UNIFORM DISTRIBUTION OF THE SEED ON THE SLOPES A HYDROMULCH CONSISTING OF WOOD CELLULOSE FIBERS AND TACKIFIER (BINDER) SHALL BE APPLIED IMMEDIATELY FOLLOWING HYDROSEEDING.

2. SEEDING (LAWN) SHALL INCLUDE THE APPLICATION OF FERTILIZER AND LAWN SEED COMPOSED OF THE SPECIES AND RATES LISTED BELOW. FERTILIZER FOR SEEDING (LAWN) SHALL BE APPLIED IN TWO PHASES. FIRST, TRIPLE SUPER-PHOSPHATE WITH AN AVAILABLE NUTRIENT ANALYSIS OF 0N-46P-0K SHALL BE APPLIED AT A RATE OF 200 LBS./ACRE. THIS FERTILIZER SHALL BE TILLED INTO THE TOP 4 INCHES OF SOIL PRIOR TO SEEDING. SECONDLY, A STANDARD COMMERCIAL FERTILIZER WITH AN AVAILABLE NUTRIENT ANALYSIS OF 20N-10P-5K SHALL BE APPLIED AT A RATE OF 200 LBS./ACRE. THIS FERTILIZER SHALL BE BROADCAST (NOT HYDROFERTILIZED) AFTER GERMINATION AT THE DIRECTION OF THE ENGINEER. SEEDING (LAWN) SHALL BE APPLIED USING HYDRAULIC SEEDING EQUIPMENT IN A SLURRY MIX THAT ENSURES UNIFORM DISTRIBUTION OF THE SEED ON THE SLOPES. A HYDROMULCH CONSISTING OF WOOD CELLULOSE FIBERS AND TACKIFIER (BINDER) SHALL BE APPLIED IMMEDIATELY FOLLOWING HYDROSEEDING.

3. MULCHING (HYDRAULIC) SHALL INCLUDE THE APPLICATION OF WOOD CELLULOSE FIBERS AND TACKIFIER (NOT PAID FOR SEPARATELY) OVER ALL SEEDING (NATIVE) AND (LAWN) AREAS. RATE OF HYDRAULIC WOOD CELLULOSE MULCH SHALL BE 1 TON/ACRE AND TACKIFIER (BINDER) RATE SHALL BE 100 LBS/ACRE.

4. HYDRAULIC SEEDING AND MULCHING EQUIPMENT SHALL BE SIZED TO CONFORM TO THE QUANTITY AND SIZE OF SEED OR MULCH APPLIED SO AS TO MAXIMIZE EQUIPMENT PERFORMANCE, MINIMIZE WASTE OF MATERIALS, CONTROL SPRAY, AND MEET COVERAGE SPECIFICATIONS

5. SOD SHALL INCLUDE THE APPLICATIONS OF FERTILIZERS DESCRIBED FOR SEEDING (LAWN) AND THE INSTALLATION OF BLUEGRASS SOD AS SHOWN ON THE PLANS.

6. ALL NEW TREES SHALL RECEIVE FERTILIZER TABLETS AS DESCRIBED IN THE 214 SPECIAL PROVISION. APPROXIMATELY 44 TABLETS WILL BE REQUIRED FOR THIS PROJECT. THESE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE PRICE OF THE PLANTS.

7. WATER USED FOR HYDRAULIC SEEDING AND MULCHING, AND FOR PLANTINGS AND SOD WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK. ALL PLANTINGS (GRASS, SHRUBS, TREES, ETC.) IN IRRIGATED AREAS SHALL BE PLANTED IN COORDINATION WITH THE IRRIGATION SYSTEM SO IRRIGATION CAN BEGIN IMMEDIATELY FOLLOWING PLANTING.

8. THE HEALTH AND MAINTENANCE (WATERING) OF ALL EXISTING TREES AND SHRUBS DESIGNATED TO REMAIN (SEE GRADING AND PLANTING PLANS) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR DURING THE CONSTRUCTION PERIOD. LOSS OF TREES OR SHRUBS BECAUSE OF NEGLECT WILL RESULT IN REPLACEMENT IN KIND AND SIZE BY THE CONTRACTOR AT THEIR OWN EXPENSE.

9. REFER TO 215 STANDARD SPECIFICATION FOR THE FERTILIZATION REQUIREMENTS OF THE TRANSPLANTED PLANT MATERIALS.

SEED MIX — SEEDING (LAWN) — Furnish and Install

COMMON NAME	BOTANICAL NAME	PLS. LBS./ACRES	PROJECT PLS. LBS
A-34 BLUEGRASS	POA PRATENSIS "A-34"	20	40
FYLKING BLUEGRASS	POA PRATENSIS "FYLKING"	20	40
GLADE BLUEGRASS	POA PRATENSIS "GLADE"	10	20
MANHATTAN II PERENNIAL RYE	LOLIUM PERENNE "MANHATTAN II"	10	20
	TOTAL	60	120

SEED MIX — SEEDING (NATIVE) — Furnish and Install

COMMON NAME	BOTANICAL NAME	PLS. LBS./ACRES	PROJECT PLS. LBS.
TALL FESCUE	FESTUCA ARUNDINACEA "FALCON"	25	125
CANADA BLUEGRASS	POA COMPRESSA "REUBEN"	10	50
SMOOTH BROME	BROMUS INERMIS "LINCOLN"	25	125
	TOTAL	60	300

AS CONSTRUCTED

AS BUILT REVISIONS	REVISED 7-21-89	VOID

FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR25-2(191)	57	242

DESIGN

DATE

LANDSCAPE PLAN

L-2

50 0 50 100
scale ORIGINAL SCALE feet

TRANSPLANT PLAN

INTERSTATE 25

WEST 6 th AVENUE

5205
5200
5210
5215
5220
5225

LEGEND

- E — Existing Tree or Shrub to Remain
- X — Remove Tree or Shrub
- T# — Existing Location of Transplant (Evergreen / Deciduous)
- (T#) — New Location of Transplant

HWYS

AS CONSTRUCTED

NO REVISIONS ☐ REVISED ☐ VOID ☐

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	58	24

DESIGN

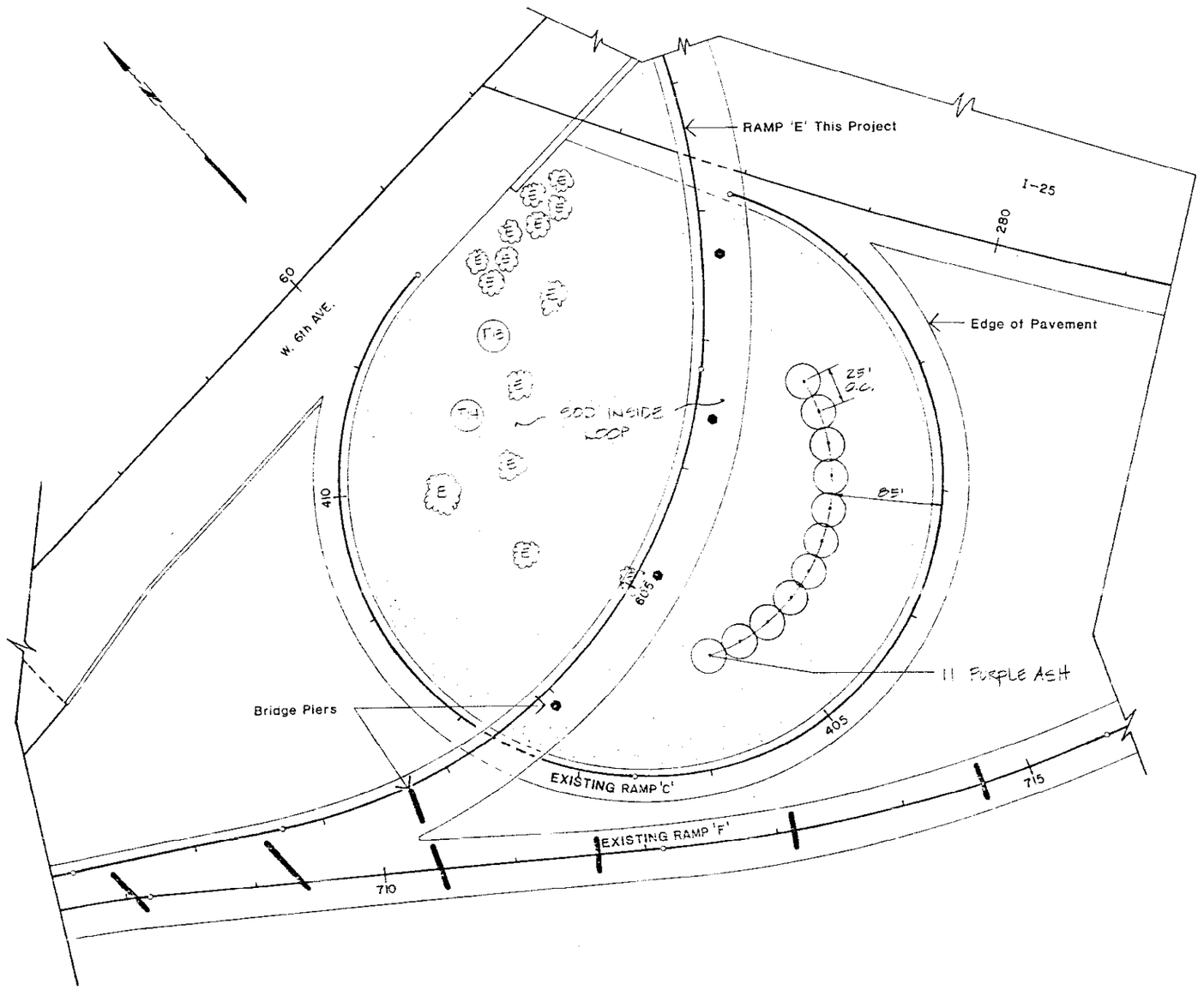
DATE

LANDSCAPE PLAN

L-3

1"=50' scale 50 0 50 100 feet

ORIGINAL SCALE



SUMMARY OF IRRIGATION QUANTITIES – Furnish and Install

AS CONSTRUCTED
NO REVISIONS | REVISED | VOID

FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	59	242

DESIGN
DATE

IRRIGATION SUMMARY

I-1

Symbol	Item No.	Description	Unit	Riser	Pattern	GPM	PRESSURE LBS	SPACING FEET	RADIUS FEET	SHEET QUANTITIES I-2	PLAN QUANTITIES	FINAL QUANTITIES
SPRINKLERS												
○	623	1 Inch Pop-up Rotary Sprinkler	Each	Plastic	360°	13.5	50	55	55	41	41	
◓	623	1 Inch Pop-up Rotary Sprinkler	Each	Plastic	180°	13.5	50	55	55	23	23	
MISCELLANEOUS ITEMS												
	619	1 Inch Plastic Pipe (PE)	Lin. Ft.							1400		
	619	1 1/2 Inch Plastic Pipe (PE)	Lin. Ft.							1055		
	619	2 Inch Plastic Pipe (PE)	Lin. Ft.							455		
	619	3 Inch Plastic Pipe (PVC)	Lin. Ft.							775		
X O.V.	623	1 Inch Drain Valve	Each							2		
⧗	623	2 Inch Automatic Control Valve	Each							12		
	623	Control Wire 24 Volt	Lin. Ft.							3580		
A (12)	623	12 Station Automatic Controller	Each							1		

LEGEND

Toro 644-02-42
Toro 642-02-42

GENERAL NOTES

1. THE CONTRACTOR WILL NOT INTERRUPT SPRINKLER SYSTEM SERVICE TO THE SE, SW, OR NW QUADRANTS BETWEEN APRIL AND OCTOBER.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE IMMEDIATE REPAIR AND MAINTENANCE OF BROKEN OR DAMAGED LINES THAT IRRIGATE THE SW, NW, AND SE QUADRANTS. THE 6" MAIN IN THE I-25 MEDIAN MUST BE REROUTED AROUND NEW PIER CONSTRUCTION. THE 6" LINE IN THE 6th AVE MEDIAN MUST BE REROUTED AROUND FOOTING FOR SIGN NO. 1. THIS WORK AND THE 6" CROSS-MAIN CAPS AND THURST BLOCKS WILL BE PAID FOR UNDER THE FORCE ACCOUNT ITEM "REPAIR, RESET, AND MAINTENANCE OF EXISTING IRRIGATION SYSTEM."
3. NEW VALVES, THRUST BLOCKS, ETC., SHALL CONFORM TO THE LATEST REVISION OF THE "DENVER WATER DEPARTMENT ENGINEERING STANDARDS."
4. ALL PIPE SIZES SHOWN ON THE PLANS SHALL BE AS FOLLOWS: 1", 1-1/2", AND 2" LATERALS SHALL BE POLYETHYLENE; 3" SHALL BE POLYVINYL CHLORIDE PRESSURE CLASS 200, EXCEPT WHERE SHOWN ON THE PLANS.
5. SPRINKLER SYSTEM INSTALLATION SHALL BE COORDINATED WITH ALL OTHER UTILITY, LIGHTING, AND PLANTING INSTALLATION. IRRIGATION LINES SHALL NOT BE INSTALLED WITHIN 10 FEET PIER FACES, LIGHT STANDARDS, TREES, ETC. SPRINKLERS SHALL BE PLACED 4 FEET FROM EDGE OF SHOULDER OR PIER FACE WHERE SHOWN ON THE PLANS AND A MINIMUM OF 10 FEET FROM TREES OR LIGHT STANDARDS.
6. AUTOMATIC CONTROLLERS SHALL BE "RAIN MASTER RM12E-OD SERIES" AS MADE BY RAIN MASTER IRRIGATION SYSTEMS , OR APPROVED EQUAL.
7. THE CONTRACTOR SHALL RESET AND ADJUST ALL EXISTING IRRIGATION LINES, HEADS, VALVES, OR OTHER COMPONENTS NECESSARY, WHICH ARE IMPACTED BY THE WIDENING OF I-25 AND THE OFF-RAMP REGRADING IN THE SE QUADRANT. ADJUSTMENTS TO THESE COMPONENTS SHALL BE MADE TO REESTABLISH THE ORIGINAL IRRIGATION COVERAGE AND PATTERN ALONG I-25 AND PROVIDE COVERAGE IN THE NEWLY LAWN SEEDED AREAS (REGRADED OFF-RAMP AREA). ALL ADJUSTMENTS WILL BE MADE TO THE BEST OF THE ABILITY OF THE EXISTING IRRIGATION EQUIPMENT. SHOULD NEW EQUIPMENT BE REQUIRED, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE ENGINEER, A WRITTEN REQUEST AND COST ESTIMATE.
8. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE IMMEDIATE REPAIR AND REPLACEMENT OF BROKEN OR DAMAGED IRRIGATION SYSTEM COMPONENTS (LINES, HEADS, VALVES, WIRE, ETC.) DUE TO WORK ASSOCIATED WITH THE CONSTRUCTION OF THE SIDEWALK AND CURB RAMP ALONG W. 8TH AVE. IN THE NORTHWEST QUADRANT.

HIGHWAYS
31
25

AS CONSTRUCTED			
NO REVISIONS	REVISED	VOID	

FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	60	242

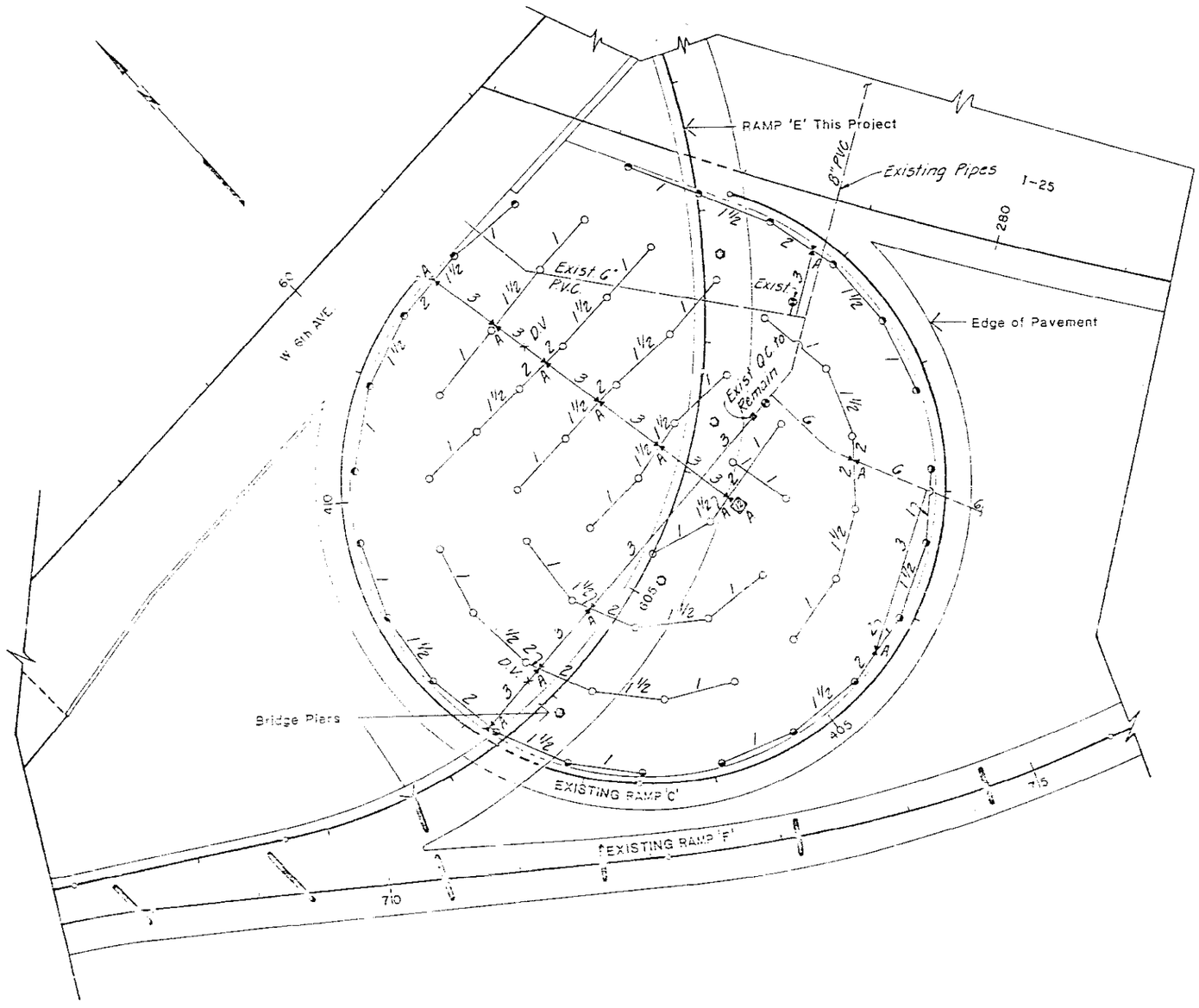
DESIGN
DATE

IRRIGATION PLAN

I-2.

1"=50' scale 50 0 50 100 feet

ORIGINAL SCALE



OF COLORADO
DEPARTMENT OF HIGHWAYS
ION OF HIGHWAYS
- FORM NO. 1261
FEB. 1964

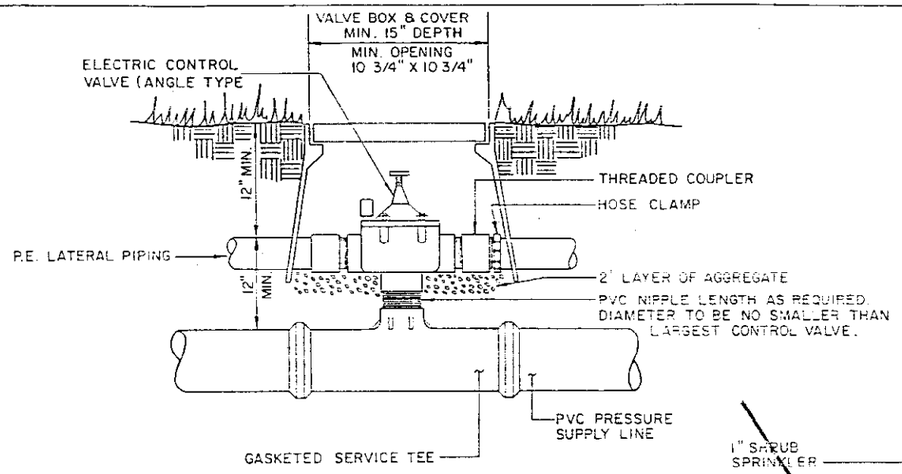
AS CONSTRUCTED						
NO REVISIONS		REVISED		VOID		

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	61	241

DESIGN O.S.
DATE 10/36

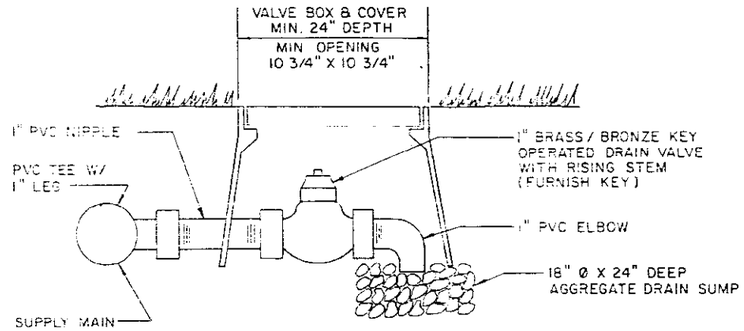
IRRIGATION DETAILS

I-3



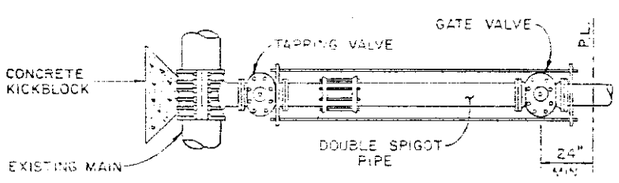
DETAIL OF VALVE & VALVE BOX

VALVE BOX, HOSE CLAMPS, AGGREGATE, AND NIPPLES TO BE SUBSIDIARY TO AUTOMATIC CONTROL VALVE ITEM.



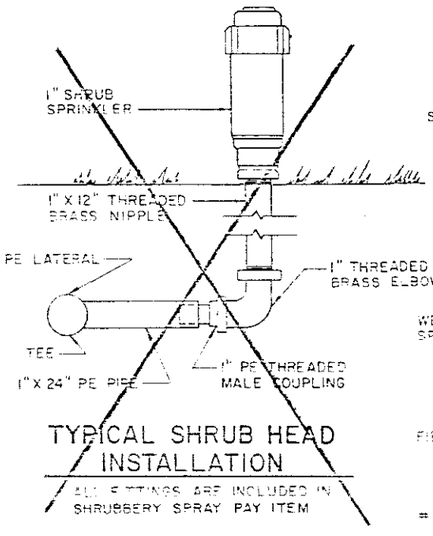
DRAIN VALVE DETAIL

VALVE BOX AND FITTINGS ARE SUBSIDIARY TO 1" DRAIN VALVE ITEM



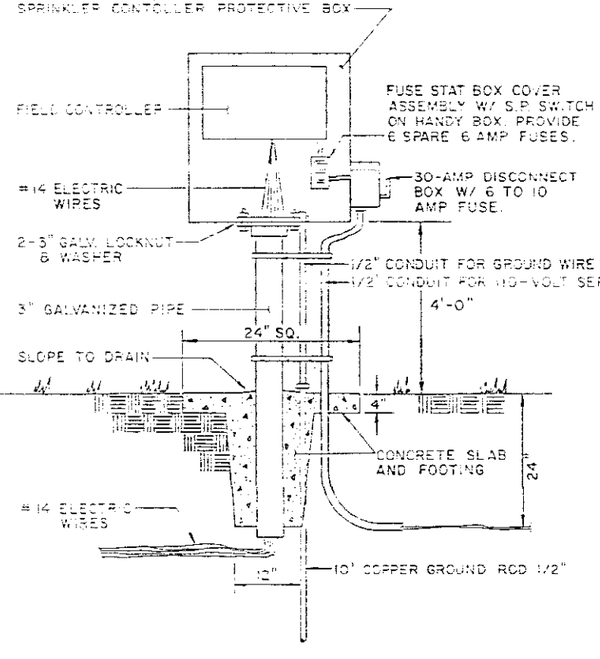
TAPPING CONNECTION

ALL MATERIAL AND WORK IS INCLUDED IN FORCE ACCOUNT "RELOCATE WATER TAP" EXCEPT FOR GATE VALVE.



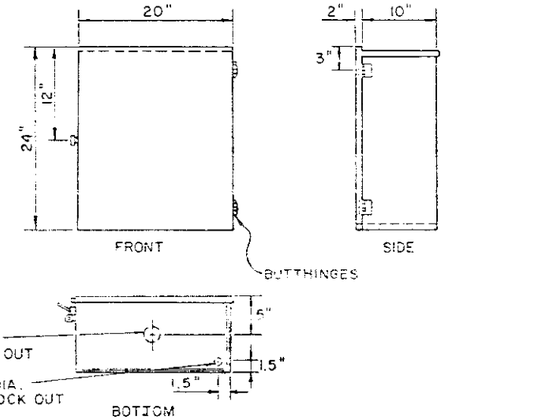
TYPICAL SHRUB HEAD INSTALLATION

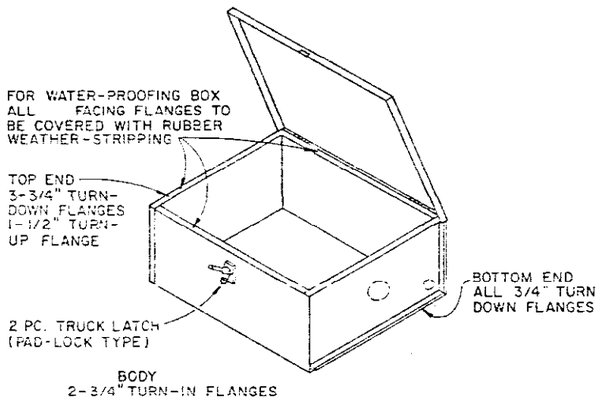
ALL FITTINGS ARE INCLUDED IN SHRUBBERY SPRAY PAY ITEM



PIPE MOUNTED CONTROLLER DETAIL

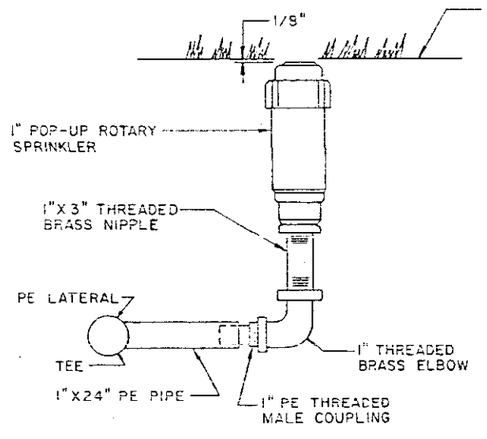
ALL MATERIAL IS INCLUDED UNDER AUTOMATIC CONTROLLER PAY ITEM.





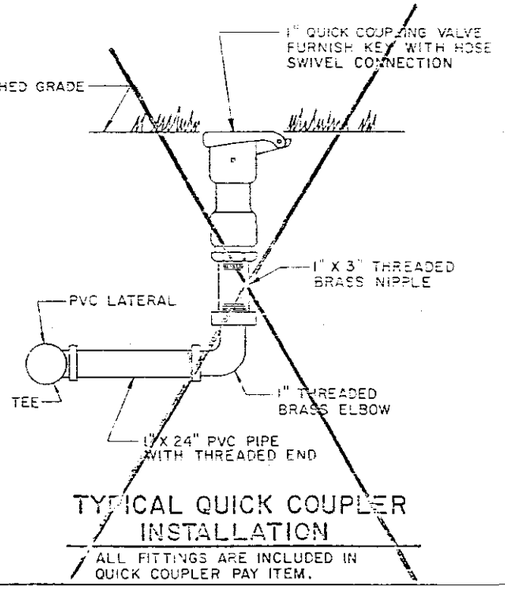
WEATHER-PROOF, VANDAL-PROOF, SPRINKLER CONTROLLER BOX

ALL MATERIAL IS INCLUDED UNDER AUTOMATIC CONTROLLER PAY ITEM.



TYPICAL POP-UP HEAD INSTALLATION

ALL FITTINGS ARE INCLUDED IN POP-UP HEAD PAY ITEM.



TYPICAL QUICK COUPLER INSTALLATION

ALL FITTINGS ARE INCLUDED IN QUICK COUPLER PAY ITEM.

AS CONSTRUCTED					
NO REVISIONS ☐	REVISED ☐	VOID ☐	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
			VIII	COLO.	IR 25-2(191)	62	242

UNDERPASS LIGHTING						
STATION	OFFSET	SIDE	LOCATION	2 INCH ELEC CONDUIT	WALL MT 150 W HPS	PENDANT MT 150 W HPS
603 + 60	15 FT	RT	RAMP E	40 FT.		1
610 + 10	11 FT	RT	RAMP E		1	
610 + 20	12 FT	RT	RAMP E		1	
615 + 10	13 FT	RT	RAMP E			(FUTURE)
908 + 23	5 FT	LT	RAMP H			(FUTURE)
614 + 15	13 FT	RT	RAMP E			1
620 + 97	37 FT	RT	RAMP E			1
621 + 02	1 FT	RT	RAMP E			1
275 + 30	20 FT	RT	SOUTHBOUND I25	170 FT	1	
275 + 90	20 FT	RT	SOUTHBOUND I25	50 FT	1	
276 + 30	20 FT	RT	SOUTHBOUND I25	50 FT	1	
275 + 70	20 FT	LT	NORTHBOUND I25	279 FT	1	
276 + 20	20 FT	LT	NORTHBOUND I25	50 FT	1	
276 + 70	20 FT	LT	NORTHBOUND I25	95 FT	1	
911 + 35	6 FT	LT	RAMP H			(FUTURE)
TOTAL:				734 LIN.FT.	8	4

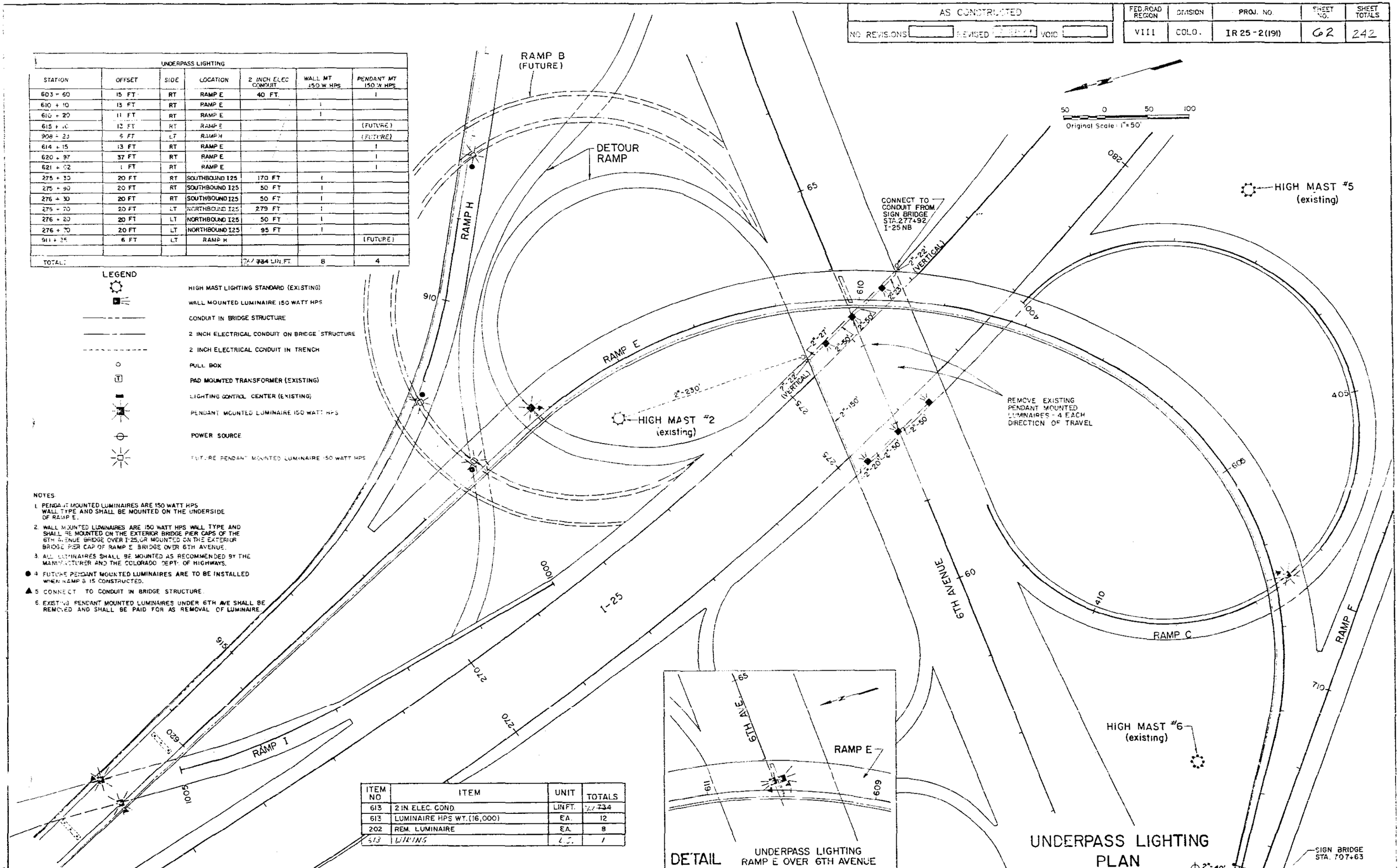
LEGEND

- HIGH MAST LIGHTING STANDARD (EXISTING)
- WALL MOUNTED LUMINAIRE 150 WATT HPS
- CONDUIT IN BRIDGE STRUCTURE
- 2 INCH ELECTRICAL CONDUIT ON BRIDGE STRUCTURE
- 2 INCH ELECTRICAL CONDUIT IN TRENCH
- PULL BOX
- PAD MOUNTED TRANSFORMER (EXISTING)
- LIGHTING CONTROL CENTER (EXISTING)
- PENDANT MOUNTED LUMINAIRE 150 WATT HPS
- POWER SOURCE
- FUTURE PENDANT MOUNTED LUMINAIRE 150 WATT HPS

NOTES:

1. PENDANT MOUNTED LUMINAIRES ARE 150 WATT HPS WALL TYPE AND SHALL BE MOUNTED ON THE UNDERSIDE OF RAMP E.
2. WALL MOUNTED LUMINAIRES ARE 150 WATT HPS WALL TYPE AND SHALL BE MOUNTED ON THE EXTERIOR BRIDGE PIER CAPS OF THE 6TH AVENUE BRIDGE OVER I-25, OR MOUNTED ON THE EXTERIOR BRIDGE PIER CAP OF RAMP E BRIDGE OVER 6TH AVENUE.
3. ALL LUMINAIRES SHALL BE MOUNTED AS RECOMMENDED BY THE MANUFACTURER AND THE COLORADO DEPT. OF HIGHWAYS.
4. FUTURE PENDANT MOUNTED LUMINAIRES ARE TO BE INSTALLED WHEN RAMP B IS CONSTRUCTED.
5. CONNECT TO CONDUIT IN BRIDGE STRUCTURE.
6. EXISTING PENDANT MOUNTED LUMINAIRES UNDER 6TH AVE SHALL BE REMOVED AND SHALL BE PAID FOR AS REMOVAL OF LUMINAIRE.

ITEM NO	ITEM	UNIT	TOTALS
613	2 IN. ELEC. COND.	LIN FT.	734
613	LUMINAIRE HPS WT. (16,000)	EA.	12
202	REM. LUMINAIRE	EA.	8
613	WIRING	L.S.	1



UNDERPASS LIGHTING PLAN

STATE OF COLORADO
STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
FORM NO. 826
FEB. 1984

AS CONSTRUCTED		
NO REVISIONS ☐	REVISED ☐	VOID ☐

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2 (191)	63	

TABULATION OF SIGNING QUANTITIES

ITEM NO.	ITEM	UNIT			TOTALS
202	REM DELINEATOR	EA			[illegible] ~~36~~
202	REM PAVEMENT MARKING	SQ FT			[illegible] ~~11,378~~
202	REM OVERHEAD SIGN STR	EA			4
202	REM GROUND SIGN	EA			[illegible] ~~30~~
202	REM SIGN PANEL	EA			4
202	REM TRAF SIG HEAD	EA			12
202	REM TRAF SIG POLE	EA			[illegible] ~~4~~
202	REM TRAF SIG CONTROL & CAB	EA			1
210	RES DELINEATOR	EA			19
210	RES GROUND SIGN	EA			[illegible] ~~3~~
210	RES SIGN PANEL	EA			1
612	DELINEATOR (TY I)	EA			54
612	DELINEATOR (TY II)	EA			10
612	REFLECTOR (MEDIAN BARRIER)	EA			[illegible] ~~76~~
613	2 IN ELEC COND	LIN FT			[illegible] 695
613	2 IN ELEC COND (JACKED)	LIN FT			[illegible] ~~105~~
613	DIRECT-BURIAL CABLE	LIN FT			[illegible] ~~490~~
614	SIGN PANEL (CL I)	SQ FT			[illegible] ~~238~~
614	SIGN PANEL (CL II)	SQ FT			[illegible] ~~277~~
614	SIGN PANEL (CL III)	SQ FT			3,045
614	TIMBER SIGN POST (4 X 4)	LIN FT			[illegible] ~~82~~
614	TIMBER SIGN POST (6 X 6)	LIN FT			[illegible] ~~284~~
614	STEEL SIGN POST (S 3 X 5.7)	LIN FT			40
614	CONC FOOTING III-S (DRILLED)	EA			2
614	CONC FOOTING V (SPREAD)	EA			1
614	CONC FOOTING II-S (SPREAD)	EA			3
614	CONC FOOTING III-S (SPREAD)	EA			6
614	MASK SIGN LEGEND	EA			1 ~~2~~
614	MODIFICATION SIGN LEGEND	L S			1
614	OVERPASS MTD SIGN BRACKET	EA			2
614	SIGN BR STR (60<65)	EA			2
614	SIGN BR STR (70<75)	EA			1
614	SIGN BR STR (95<100)	EA			1
614	SIGN BR STR (100<105)	EA			1
614	SIGN BR STR (105<110)	EA			1
614	BAL BTRFLY STR	EA			1
614	CANT STR (25<30)	EA			1
614	PED SIG (16)	EA			[illegible] ~~4~~
614	TRAF SIG (8-8-8)	EA			8
614	TRAF SIG (12-8-8)	EA			7
614	TRAF SIG CONTROL CABINET (3)	EA			1
614	COORDINATION UNIT	EA			1
614	LOOP DETECTOR WIRE	LIN FT			1108 ~~980~~
614	DETECTOR AMP (LOOP)	EA			5
(P-1) 614	*GLARE SCREEN (TEMPORARY)	LIN FT			[illegible] ~~[illegible]~~
614	CONCRETE BARRIER (TEMP)	LIN FT			~~1672~~

* 8 Green Color Paddles per 10' Section, 24" High, 1 Full Height Reflector Strip per 10' Section

SCHEDULE OF CONSTRUCTION TRAFFIC DEVICES

SIGNS						OTHER DEVICES	
SIGN CODE	LEGEND	DIMENSIONS	PANEL SIZE A	B	C	ITEM	QUANTITY
	SIGN TOTALS						

(P-1)

OF COLORADO
DEPARTMENT OF HIGHWAYS
N OF HIGHWAYS
FORM NO. 826
EB. 1984

AS CONSTRUCTED	FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS ☐ REVISED ☐ VOID ☐	VIII	COLO.	IR 25-2 (191)	64	

TABULATION OF SIGNING QUANTITIES (CONTINUED)

	ITEM NO.	ITEM	UNIT			TOTALS
	614	SIG-LIGHT POLE S	EA			1
	614	SIG-LIGHT POLE S(1)	EA			2
	614	SIG-LIGHT POLE S(2)	EA			1
	614	CONTROLLER (S-S) (F-A) ~~(2)~~	EA			1
xx	627	PVMT MKG PAINT	GAL			~~55~~
xx	627	THERMOPLASTIC PVMT MKG	SQ FT			~~17,719~~
xx	627	PLASTIC PVMT MKG (60 MILS)	SQ FT			~~3,263~~

SCHEDULE OF CONSTRUCTION TRAFFIC DEVICES

SIGNS						OTHER DEVICES	
SIGN CODE	LEGEND	DIMENSIONS	PANEL SIZE A	PANEL SIZE B	PANEL SIZE C	ITEM	QUANTITY
		SIGN TOTALS					

xx *Estimated Quantity-Various locations as required by the work and approved or directed by the engineer. For Construction and Temporary Pavement Markings (Thermoplastic 8,885 Sq. Ft.) (Paint 43 Gal.) (Plastic Pavement Marking (60 Mils) 1,263 Sq.Ft.)*

STATE OF COLORADO
STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
D. O. H. FORM NO. 1281
REV. FEB. 1984

AS CONSTRUCTED					
NO REVISIONS		REVISED		VOID	

FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR25-2(191)	65	

TABULATION OF DELINEATORS

STATIONS	SIDE	SPACING (FT.)	TYPE I		TYPE II		TYPE III		REFLECTOR (MEDIAN BARRIER)	REMOVALS	REMARKS
			EACH	RESET	EACH		EACH		EACH	EACH	
Osage On Ramp											
0+00 to 2+86	Rt.	26	12c								
0+00 to 3+15	Lt.	26	12c 1R							1	Field Locate Type I Crystal in gore
3+15 to 3+89	Rt.	100			1c						
6th. Ave. W.B.											
76+54 to 72+75	Rt	100			4c						
71+50	Rt.	—	1c								Field Locate Type I Crystal in gore
76+54 to 70+00	Rt.	—								4	
6th. Ave. W.B. to I-25 N.B.	Rt.	—		1G							Reset For Detour Ramp "B"
Ramp H											
901+40 to 913+00	Rt. Lt.	100							23c		
Ramp E											
601+52 to 616+00	Rt. Lt.	56							23c 28y		
Ramp I											
272+10 to 268+40	Rt.	—	1c		1c						Field Locate Type I Crystal in gore
1000+25 to 1003+25	Rt.	100			4c						
1004+25 to 1008+95	Rt. Lt.	100	6c								
1007+25 to 1008+95	Rt. Lt.	50	8R								
I-25 Northbound											
255+00 to 253+35	Rt.	100	2c							5	
279+00 to 283+00	Rt.	100	5c								
I-25 N.B. to 6th. Ave. W.B.	Lt.			3							Reset For Detour Ramp "A"
Wyandot On-Ramp	Lt.	26	6y							~~6~~ 4	
E.S. 6th. Ave. To N.B. I-25	Lt.	—								20	
TOTALS			23c 18y 8R = 54	19	10c				36c 38y = ~~75~~ 74	34 ~~36~~	

NOTE:
R = Red
C = Crystal
Y = Yellow

STATE OF COLORADO
DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
FORM NO. 822
FEB. 1984

TABULATION OF SIGNS

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS ☐	REVISED ☐	VOID ☐	VIII	COLO.	IR 25-2(191)	66	

SIGN NO.	SIGN CODE	STATION	SIGN PANEL SIZE	BACK-GROUND COLOR	REMOVE GROUND SIGN (EACH)	RESET GROUND SIGN (EACH)	NO. OF POSTS	LENGTH OF POST	POST TYPE (LIN. FT.)									CONC. FOOTING TYPE (EACH)								SIGN PANEL (SQ. FT.)		
									4 X 4 TIMBER	6 X 6 TIMBER	W6X12 BEAM	W6X15 BEAM	W8X18 BEAM	W8X21 BEAM	W10X22 BEAM	STEEL	STEEL	S3X5.7 BEAM	U-2	1	2	3	4	5	6	7	8	CLASS I	CLASS II	CLASS III
1	See Tabulation	of Overhead Signs																										
2		42+20/6th Ave EB			Remove Overhead Sign Structure																							
3	See Tabulation	of Overhead Signs																										
4	48 W4-2R	54+00/6th Ave EB	48" X48"	Yellow			1	18'-6"		18.5																		16.00	
5	DELETED																												
6	48 RI-2	409+50 Ramp C	48" Triangle	White ▲			1	14'-6"	14.5																			6.93	
7	See Tabulation	of Overhead Signs																										
8a	24 M3-1a		24" x 12"	Blue																								2.00	
8b	24 MI-1(25)		24" Shield	Blue/Red																								4.00	
8c	21 M6-2a(L)		21" x 15"	Blue			1	9'										9.0	(Stub post in place)									2.19	
8d	24 M3-3a	710+30/Ramp F	24" x 12"	Blue																								2.00	
8e	24 MI-1(25)		24" Shield	Blue/Red																								4.00	
8f	21 M6-2a(R)		21" X 15"	Blue																								2.19	
9	48 W4-2L	718+00/Ramp F	48" X48"	Yellow			1	18'-6"		18.5																		16.00	
10	See Tabulation	of Overhead Signs																										
11	See Tabulation	of Overhead Signs																										
12		311+50/I-25 NB			1																							
13	See Tabulation	of Overhead Signs																										
14	See Tabulation	of Overhead Signs			Remove 2 Sign Panels and Reset 1 Sign Panel																							
15	See Tabulation	of Overhead Signs																										
16		282+80/I-25 NB			1																							
17a	48 R3-7R	282+70/I-25 NB	48" X 48"	White			1	19'-6"		19.5																		16.00	
17b	Special		48" X 18"	White																								6.00	
18		280+70/I-25 NB			1																							
19		279+10/I-25 NB				1																						
20	See Tabulation	of Overhead Signs																										
21	Special	277+92/I-25 NB	60" X 60"	White	Mount on Overhead Sign Post																							25.00	
22		276+80/I-25 NB			Remove 1 Sign Panel (Overpass Mounted)																							
23	See Tabulation	of Overhead Signs																										
24	48 W13-2(35)	270+80/I-25 NB	48" X 60"	Yellow	Mount on Overhead Sign Post																							20.00	
25		270+20/I-25 NB			1																							
26	Special	1003+75/Ramp I	11' X 5'	Green ▲			2	18'		36.0																			55.00
27	48 W4-3R	264+00/I-25 NB	48" X 48"	Yellow			1	18'-6"		18.5																		16.00	
28	48 W4-2R	260+00/I-25 NB	48" X 48"	Yellow			1	18'-6"		18.5																		16.00	
29		255+40/I-25 NB			1																							
30	See Tabulation	of Overhead Signs			Remove 1 Sign Panel																							
31		64+80/6th Ave EB			1																							
32		66+00/6th Ave EB			Remove Overhead Sign Structure																							
33		66+30/6th Ave EB			1																							
34		66+40/6th Ave EB			1																							
35	48 W4-1R	256+00/I-25 NB	48" X 48"	Yellow			1	18'-6"		18.5																		16.00	
36	See Tabulation	of Overhead Signs																										
37		79+10/6th Ave WB			1																							
38		79+10/6th Ave WB			1																							

NOTE: 1. Post length are approximate only. Exact lengths to be determined by the engineer.

▲ 2. Reflective sheeting shall be high brightness encapsulated type. See Section 713 of the Standard Specifications.

OF COLORADO
DEPARTMENT OF HIGHWAYS
N OF HIGHWAYS
FORM NO. 822
B. 1984

TABULATION OF SIGNS

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS ☐	REVISED ☐	VOID ☐	VIII	COLO.	IR 25-2(191)	67	

SIGN NO.	SIGN CODE	STATION	SIGN PANEL SIZE	BACK-GROUND COLOR	REMOVE GROUND SIGN (EACH)	RESET GROUND SIGN (EACH)	NO. OF POSTS	LENGTH OF POST	POST TYPE (LIN. FT.)									CONC. FOOTING TYPE (EACH)			SIGN PANEL (SQ. FT.)		
									4 X 4 TIMBER	6 X 6 TIMBER	W6X12 BEAM	W6X15 BEAM	W6X16 BEAM	W8X21 BEAM	W10X22 BEAM	STEEL	STEEL	S3X5.7 BEAM				CLASS I	CLASS II	CLASS III
39		78+80/6th Ave WB			1																		
40		78+00/6th Ave WB			1																		
41		77+70/6th Ave WB				1																3.90	
42	36 R1-2	3+00/Osage On-Ramp	36" Triangle	White ▲			1	14'-6"	14.5														
43		74+50/6th Ave WB			1																		
44	See Tabulation	of Overhead Signs																					
45	48 W13-3(35)	73+95/6th Ave WB	48" X 60"	Yellow			Mount on Overhead Sign Post															20.00	
46		73+15/6th Ave WB			1																		
47		72+10/6th Ave WB			Remove Overhead Sign Structure																		
48	Special	71+10/6th Ave WB	6' X 5'	Green ▲			2	18'		36.0													30.00
49		70+90/6th Ave WB			1																		
50		67+70/6th Ave WB			Remove Overhead Sign Structure																		
51		67+30/6th Ave WB			1																		
52a	24 R9-3a	902+85/Ramp H	24" X 24"	White			1	11'										11.0				4.00	
52b	24 R5-6		24" X 24"	White																		4.00	
53		906+00/Ramp H					1	2'-6"										2.5 (Stub Post-Future Sign Installation)					
54	36 W4-2R	914+00/Ramp H	36" X 36"	Yellow			1	7'-6"										7.5				9.00	
55	36 W4-1R	614+00/Ramp E	36" X 36"	Yellow			1	10'										10.0				9.00	
56a	Deleted																						
56b	36 R5-1a	1007+85/Ramp I	36" X 24"	Red ▲			1	11'-6"	11.5													6.00	
57a	Special	1007+85/Ramp I	36" X 30"	White			1	15'-0"		15.0												7.50	
57b	36 R5-1a	1007+85/Ramp I	36" X 24"	Red ▲																		6.00	
58	DELETED																						
59	30R3-7L	1802+00/8th Ave	30" X 30"	White			1	14'-0"	14.0													6.25	
60	SPECIAL	1803+55/8th Ave	30" X 44"	White			Mount on Overpass Mounted Sign Bracket															9.17	
61		1805+85/8th Ave			1																		
62a	24 M3-1a		24" X 12"	Blue																		2.00	
62b	24 M1-1(25)	1805+90/8th Ave	24" Shield	Blue/Red			1	15'-0"		15.0												4.00	
62c	21 M6-1a		21" x 15"	Blue																		2.19	
63	24 R10-6	1806+40/8th Ave	24" x 36"	White			1	13'-0"	13.0													6.00	
64	30 R5-1	1806+70/8th Ave	30" x 30"	White ▲			Mount on Signal Pole															6.25	
65	Special	1806+70/8th Ave	36" X 30"	White			Mount on Signal Pole															7.50	
66	30 R5-1	1806+80/8th Ave	30" x 30"	White ▲			Mount on Signal Arm															6.25	
67	30 R3-5	1806+95/8th Ave	30" X 36"	White			Mount on Signal Arm															7.50	
68	Special	78+90/6th Ave WB	6' X 5'	Green ▲			2	18'-0"		36.0													30.00
69		1807+32/8th Ave			1																		
70		1808+75/8th Ave			1																		
71	30 R5-1	1807+55/8th Ave	30" x 30"	White ▲			Mount on Signal Pole															6.25	
72	30R3-5	1806+85/8th Ave	30" x 30"	White ▲			Mount on Signal Arm															6.25	
73	30R3-5	1807+55/8th Ave	30" x 30"	White ▲			Mount on Signal Arm															6.25	
74	24 R3-2	1806+75/8th Ave	24" X 24"	White			Mount on Signal Arm															4.00	
75	30R3-5	1806+95/8th Ave	30" X 30"	White ▲			Mount on Signal Arm															6.25	
76		1807+25/8th Ave			1																		
77		1806+80/8th Ave			1																		

NOTE: 1. Post lengths are approximate only. Exact lengths to be determined by the engineer.

▲ 2. Reflective sheeting shall be high brightness encapsulated type. See Section 713 of the Standard Specifications.

STATE OF COLORADO
DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
FOR NO. 822
SHEET 1

TABULATION OF SIGNS

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS ☐	REVISED ☐	VOID ☐	VIII	COLO.	IR 25-2(191)	68	

SIGN NO.	SIGN CODE	STATION	SIGN PANEL SIZE	BACK-GROUND COLOR	REMOVE GROUND SIGN (EACH)	RESET GROUND SIGN (EACH)	NO. OF POSTS	LENGTH OF POST	POST TYPE (LIN. FT.)									CONC. FOOTING TYPE (EACH)									SIGN PANEL (SQ. FT.)		
									4 X 4 TIMBER	6 X 6 TIMBER	W6X12 BEAM	W6X15 BEAM	W8X18 BEAM	W8X21 BEAM	W10X22 BEAM	STEEL	STEEL	S3X5.7 BEAM	I-2	I	2	3	4	5	6	7	8	CLASS I	CLASS II	CLASS III
78		1806+70/8th Ave			1																								
79	36 R1-2	1806+45/8th Ave	36" Triangle	White ▲			1	14-6"	14.5																			3.90	
80		254+25/I-25 NB			1																								
81		253+90/I-25 NB			1																								
82		254+40/I-25 NB			1																								
83		253+55/I-25 NB				1																							
84		254+10/I-25 NB			1																								
85		253+95/I-25 NB			1																								
86a	24M3-1a		24" X 12"	Blue																							2.00		
86b	24M1-1(25)	1803+00/8th Ave.	24" Shield	Blue/Red			1	15'-0"		15.0																	4.00		
86c	21M5-1a(L)		21" X 15"	Blue																							2.19		
87		61+00/6th Ave.WB			1																								
88		60+00/6th Ave.WB			1																								
89		67+00/6th Ave.WB			1																								
90	48W4-2R	69+50/6th Ave.WB	48" X 48"	Yellow			1	18'-6"		18.5																		16.00	
		TOTALS			~~1 30~~ 1	~~12 3~~ 2			~~82.0~~ 112	~~283.5~~ 265								40.0									~~77.63~~ 4.9	~~276.28~~ 27.6	~~115.00~~ 30.45	

NOTE: 1. Post lengths are approximate only. Exact lengths to be determined by the engineer.

▲ 2. Reflective sheeting shall be high brightness encapsulated type. See Section 713 of the Standard Specifications.

AS CONSTRUCTED							
NO REVISIONS [illegible]	REVISED		VOID				

FEDERAL ROAD REGION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR 25-2(191)	69	[illegible]

TABULATION OF OVERHEAD SIGNS

SIGN NO.	STATION	SIGN PANEL SIZE	BACK-GROUND COLOR	NO OF POSTS	TYPE OF POST	STRUCTURE TYPE	FRAME SIZE	STRUCTURE NUMBER	SIGN PANEL CLASS I (SQ. FT.)	SIGN PANEL CLASS II (SQ. FT.)	SIGN PANEL CLASS III (SQ. FT.)	TYPE OF FOOTING	COMMENTS
1a		12'x11'	Green								132.00		
1b		7'x3'-6"	Yellow						24.50				
1c	41+00 6th Ave EB	12'x11'	Green	2	III-S	Sign Bridge	93' Span	F-16-PP			132.00	I-III-S (DRILLED) I-III-S (SPREAD)	
1d		11'-8"x3'-6"	Yellow						40.83				Mask Arrow ▲
1e		12'x11'	Green								132.00		
3a		12'x11'	Green								132.00		
3b	50+10 Grn Ave EB	7'x3'-6"	Yellow			Existing Sign Bridge	109' Span	F-16-NP	24.50				Existing Sign Support
3c		12'x11'	Green								132.00		
3d		11'-8"x3'-6"	Yellow						40.83				Mask Arrow ▲
7	600+00 Ramp E TO Th 63 Ramp F	33'x13'	Green	2	III-S ■	Sign Bridge	60' Span	F-16-PQ			429.00	——	Existing Footings
10	343+80 I-25 NB	16'x11'	Green			Overpass Bracket					176.00		
11	324+75 I-25 NB	20'x7'	Green	1	II-S	Butterfly	20'-0"	F-16-PW			140.00	II-S (Spread)	
13a	311+75 I-25 NB	11'x11'	Green	2	III-S	Sign Bridge	102' Span	F-16-PV			121.00	III-S (Spread)	
13b		16'x11'	Green								176.00		
14a		12'x12'	Green								——		Remove Sign Panel
14b		12'x12'	Green								——		Remove Sign Panel
14c	293+00 I-25 NB	12'x12'	Green			Existing Sign Bridge	75' Span	F-16-IV			——		Reset Sign Panel
14a		11'x12'	Green								132.00		
14e		11'x12'	Green								132.00		
15	286+00 I-25 NB	20'x7'	Green			Existing Butterfly		F-16-MS			——		Unmask Legend *
20a		12'x12'	Green								144.00		
20c	277+92 I-25 NB	12'x12'	Green	2	III-S	Sign Bridge	106' Span	F-16-PR			144.00	I-III-S (Drilled) I-III-S (Spread)	
20c		11'-8"x2'-6"	Yellow						29.17				
23	270+80 I-25 NB	13'x8'	Green	1	V	Cantilever	28'-0"	F-16-PU			104.00	V (Spread)	
30a	255+20 I-25 NB	20'x12'	Green			Existing Sign Bridge	88' Span	F-16-IT			——		No Work This Panel
30b		16'x12'	Green								——		Remove Sign Panel
36a	80+70 6th Ave WB	11'x10'	Green	2	II-S	Sign Bridge	60' Span	F-16-PT			110.00	II-S (Spread)	
36b		9'x10'	Green								90.00		
44a	73+90 6th Ave WB	16'x12'	Green	2	III-S	Sign Bridge	72' Span	F-16-PF			192.00	III-S (Spread)	
44b		15'x12'	Green								180.00		
TOTAL PANEL FOR OVERHEAD SIGNS									159.83		2930.00		

NOTES FOR OVERHEAD SIGNS

1. PANELS FOR OVERHEAD SIGNS SHALL BE SHEET ALUMINUM. SEE "CLASS III SIGNS, SHEETS 1 AND 2" INCLUDED IN THE PLANS FOR PANEL AND BACKING ZEE REQUIREMENTS. ~~SEE DEPARTMENT STANDARD "CLASS III GROUND SIGN INSTALLATIONS" FOR CLASS III PANELS. PANELS SHALL HAVE 3 ADDITIONAL BACKING ZEES SPACED AT 2'-6".~~ SEE DEPARTMENT STANDARD "CLASS I GROUND SIGN INSTALLATIONS" FOR CLASS I PANEL REQUIREMENTS. MINIMUM THICKNESS IS REDUCED TO 0.080".

2. CLASS III AND CLASS I PANELS SHALL HAVE A SMOOTH SURFACE TYPE REFLECTIVE SHEETING BACKGROUND. ~~CLASS III PANELS SHALL HAVE HIGH-BRIGHTNESS ENCAPSULATED TYPE REFLECTIVE SHEETING.~~

3. LEGEND AND BORDER FOR GREEN BACKGROUND SIGNS SHALL BE SYSTEM 1 OR SYSTEM 2 AND FOR YELLOW BACKGROUND SIGNS SHALL BE SYSTEM 4 SEE SECTION 713 OF THE STANDARD SPECIFICATIONS.

* 4 TO BE PAID FOR AS MODIFY LEGEND

▲ 5. TO BE PAID FOR AS MASK LEGEND

■ 6. LEFT POST TO BE REDUCED BY 2'-1" (THE EXISTING PEDESTAL HEIGHT ABOVE ROADWAY)

OF COLORADO
DEPARTMENT OF HIGHWAYS
ON OF HIGHWAYS
FORM NO. 126
EB. 1984

TABULATION OF PAVEMENT MARKINGS

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS ☐	REVISED ☐	VOID ☐	VIII	COLO.	IR 25-2(191)	70	

	STATION	LOCATION	PAVEMENT MARKING LINES (Linear Feet)										
			EDGE		LANE	CENTER		CHANNELIZING		LEGENDS		CROSS-WALK	STOP
			WHITE SOLID 4 INCH	YELLOW SOLID 4 INCH	WHITE BROKEN 5 INCH	YELLOW SOLID 5 INCH	YELLOW BROKEN 5 INCH	WHITE SOLID 10 INCH	YELLOW SOLID 10 INCH	"ONLY" 6' X 8'	ARROW 8'	WHITE SOLID 12 INCH	WHITE SOLID 24 INCH
■	47+10 TO 50+70	6th Ave EB						360					
■	702+35 TO 705+00	Ramp F						265					
▲	703+00 TO 707+60	Ramp F			120								
■	705+00 TO 707+60	Ramp F		260									
■	703+50 TO 721+30	Ramp F	1,780										
▲	705+00 TO 719+20	Ramp F			360								
■	709+20 TO 710+50	Ramp F						130					
■	710+50 TO 721+30	Ramp F		1,080									
▲	45+50 TO 46+80	6th Ave EB			40								
■	600+00 TO 625+10	Ramp E		2,510									
▲	600+00 TO 616+20	Ramp E			410								
■	601+60 TO 602+90	Ramp E						130					
■	602+90 TO 616+25	Ramp E	1,335										
■	616+25 TO 618+40	Ramp E						215					
■	620+00 TO 625+10	Ramp E	510										
●	50+30 TO 52+95	6th Ave EB						265					
■	288+30 TO 284+90	I-25 NB	340										
▲	288+30 TO 284+90	I-25 NB			170								
■	285+30 TO 284+70	I-25 NB						120					
■	277+90 TO 273+50	I-25 NB						440					
■	280+60 TO 278+60	I-25 NB	200										
■	274+50 TO 273+50	I-25 NB						100					
■	273+50 TO 271+30	I-25 NB	220										
▲	1007+70 TO 1009+30	Ramp I						200					
■	1000+00 TO 1009+00	Ramp I	900										
▲	1003+90 TO 1007+70	Ramp I			100								
■	1007+70 TO 1008+80	Ramp I						110					
■	1000+50 TO 1002+70	Ramp I						220					
■	1002+70 TO 1008+90	Ramp I		620									
■	270+80 TO 268+60	I-25 NB						220					
■	268+60 TO 257+80	I-25 NB	1,080										
■	261+50 TO 257+80	I-25 NB(Ramp E)						370					
▲	260+70 TO 254+80	I-25 NB(Ramp E)			150								
■	261+50 TO 252+40	I-25 NB	910										
▲	257+40 TO 252+40	I-25 NB			130								
●	254+70 TO 252+40	Mulberry Pl. to I-25 NB						230					

	STATION	LOCATION	PAVEMENT MARKING LINES (Linear Feet)										
			EDGE		LANE	CENTER		CHANNELIZING		LEGENDS		CROSS-WALK	STOP
			WHITE SOLID 4 INCH	YELLOW SOLID 4 INCH	WHITE BROKEN 5 INCH	YELLOW SOLID 5 INCH	YELLOW BROKEN 5 INCH	WHITE SOLID 10 INCH	YELLOW SOLID 10 INCH	"ONLY" 6' X 8'	ARROW 8'	WHITE SOLID 12 INCH	WHITE SOLID 24 INCH
■	80+70 TO 70+50	6th Ave WB		1,020									
▲	80+70 TO 70+50	6th Ave WB			770								
●	79+30 TO 78+90	6th Ave WB						80					
■	78+90 TO 77+00	6th Ave WB	190										
■	69+00 TO 65+00	6th Ave WB	400										
■	72+10 TO 71+20	6th Ave WB						90					
■	71+20 TO 70+50	6th Ave WB	70										
▲	69+00 TO 68+00	6th Ave WB			30								
■	1+20 TO 3+00	Osage On-Ramp		180									
■	3+00 TO 3+35	Osage On-Ramp						35					
●	0+00 TO 3+90	Osage On-Ramp	390										
■	76+55 TO 73+75	6th Ave WB	280										
■	900+40 TO 916+00	Ramp H	1,560										
■	901+90 TO 902+80	Ramp H						90					
●	902+80 TO 912+35	Ramp H		955									
■	912+35 TO 914+50	Ramp H						215					
●	1807+45 TO 1808+85	8th Ave				560							
●	1807+45 TO 1809+00	8th Ave			40								
▲	1806+50 TO 1807+60	8th Ave										470	
▲	1806+25 TO 1806+40	8th Ave											35
●	1801+90 TO 1806+40	8th Ave			120								
●	1801+90 TO 1806+25	8th Ave				870							
●	1801+95 TO 1802+45	8th Ave			20								
●	1802+75 TO 1807+15	8th Ave						440					
●	1806+70 TO 1808+30	Wyandot St.			30	240		50					

NOTE:
FOR DETAILS OF PAVEMENT MARKING LINES AND LINE PLACEMENT, SEE STANDARD S-627-1

LEGEND:
● TRAFFIC PAINT
■ THERMOPLASTIC
▲ PLASTIC PAVEMENT MARKING (60 MILS.)

TOTAL SUMMARY OF ALL PAVEMENT MARKING QUANTITIES

COLOR	PAINT (GAL.)	THERMOPLASTIC (SQ. FT.)	PLASTIC PVMT. MKG. (60 MILS.) (SQ. FT.)	PLASTIC PVMT. MKG. (90 MILS.) (SQ. FT.)
YELLOW				
WHITE				
~~TOTAL~~				

TABULATION OF PAVEMENT MARKINGS

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS ☐	REVISED ☐	VOID ☐	VIII	COLO.	IR 25-2(191)	71	[illegible]

	STATION	LOCATION	PAVEMENT MARKING LINES (Linear Feet)											
			EDGE		LANE	CENTER		CHANNELIZING		LEGENDS		CROSS-WALK	STOP	
			WHITE SOLID 4 INCH	YELLOW SOLID 4 INCH	WHITE BROKEN 5 INCH	YELLOW SOLID 5 INCH	YELLOW BROKEN 5 INCH	WHITE SOLID 10 INCH	YELLOW SOLID 10 INCH	"ONLY" 6'X 8'	ARROW 8'	WHITE SOLID 12 INCH	WHITE SOLID 24 INCH	
▲	1807+60	WB 8th Ave Center Lane								1	1 Straight			
▲	1807+60	WB 8th Ave Right Lane									1 Straight/ Right			
▲	1806+00	EB 8th Ave Center Lane								1	1 Left			
▲	1806+15	EB 8th Ave Right Lane								1	1 Straight			
▲	1803+40	EB 8th Ave Center Lane								1	1 Left			
▲	1807+00, 60 Ft. Left	SB Wyandot								1	1 Left			
▲	1008+70	Ramp 1 Left Lane								1	1 Left			
▲	1008+70	Ramp 1 Center Lane								1	1 Left			
▲	1008+70	Ramp 1 Right Lane									1 Straight/ Right			
▲	1007+90	Ramp 1 Left Lane								1	1 Left			
▲	1007+90	Ramp 1 Center Lane								1	1 Left			
▲	1007+90	Ramp 1 Right Lane									1 Straight/ Right			
	TOTAL	Traffic Paint	—	—	210	1,670	X	490	X	—	—	—	—	
	TOTAL	Thermoplastic	10,165	6,625	—	—	X	3,885	X	—	—	—	—	
	TOTAL	Plastic Pavement Marking (60 Mils)	—	—	2,280	—	X	—	X	9	2 Straight 1 Left 3 Straight/ Right	470	35	
	GRAND	TOTAL	10,165	6,625	2,490	1,670	X	4,375	X	9	2 Straight 1 Left 3 Straight/ Right	470	35	

	STATION	LOCATION	PAVEMENT MARKING LINES (Linear Feet)											
			EDGE		LANE	CENTER		CHANNELIZING		LEGENDS		CROSS-WALK	STOP	
			WHITE SOLID 4 INCH	YELLOW SOLID 4 INCH	WHITE BROKEN 5 INCH	YELLOW SOLID 5 INCH	YELLOW BROKEN 5 INCH	WHITE SOLID 10 INCH	YELLOW SOLID 10 INCH	"ONLY" 6'X 8'	ARROW 8'	WHITE SOLID 12 INCH	WHITE SOLID 24 INCH	

NOTE:

✳ 1. APPROXIMATELY 43 GAL. OF PAINT, 8885 SQ. FT. OF THERMOPLASTIC, AND 1,263 SQ. FT. OF PLASTIC PVMT. MKG. (60 MILS) ARE REQUIRED FOR TEMPORARY AND CONSTRUCTION PAVEMENT MARKINGS.

2. FOR DETAILS OF PAVEMENT MARKING LINES AND LINE PLACEMENT, SEE STANDARD S-627-1

LEGEND:

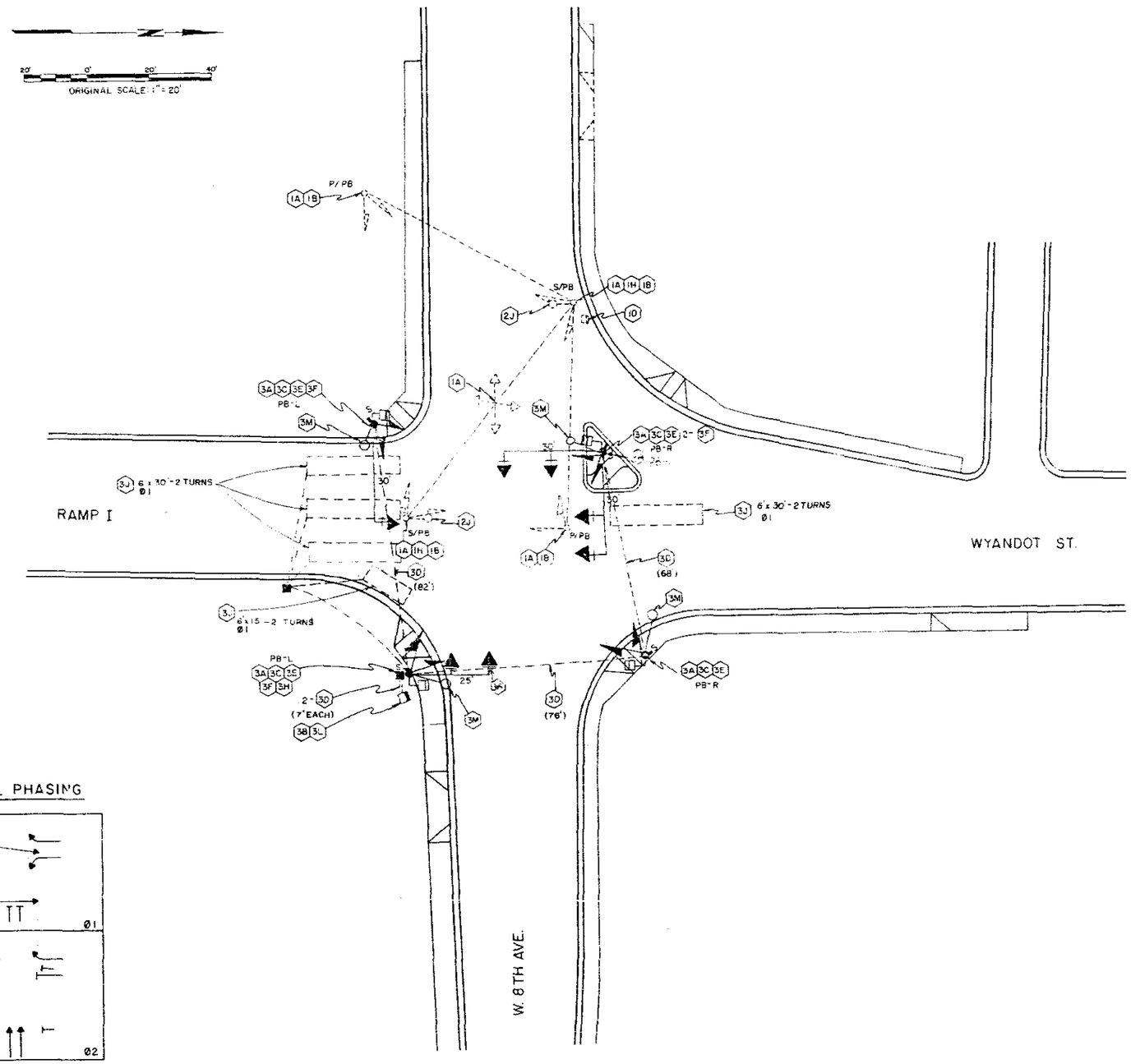
● TRAFFIC PAINT
3 THERMOPLASTIC
▲ PLASTIC PAVEMENT MARKING (60 MILS.)

TOTAL SUMMARY OF ALL PAVEMENT MARKING QUANTITIES

COLOR	PAINT (GAL.)	THERMOPLASTIC (SQ. FT.)	PLASTIC PVMT. MKG. (60 MILS.) (SQ. FT.)	PLASTIC PVMT. MKG. (90 MILS.) (SQ. FT.)
YELLOW	7	2,208	—	
WHITE	5	6,626	2,000	
TOTAL	~~55~~ ✳	~~17,719~~ ✳	~~3,263~~ ✳	

OF COLORADO
DEPARTMENT OF HIGHWAYS
ION OF HIGHWAYS:
FORM NO. 126:
EB. 1984

AS CONSTRUCTED									
NO REVISIONS ☐	REVISED 7-21-94	VOID ☐	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
			VIII	COLO.	IR25-2 (151)	72	242



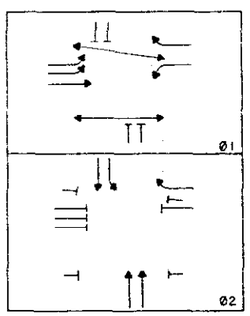
SUMMARY LIST OF QUANTITIES

KEY	ITEM DESCRIPTION	UNIT	QTY
1A	REMOVAL OF TRAFFIC SIGNAL HEAD (EACH)	EA	12
1D	REMOVAL OF TRAFFIC SIGNAL CONTROLLER & CABINET (EACH)	EA	1
1B	REMOVAL OF TRAFFIC SIGNAL POLE (EACH)	EA	~~4~~ 6
3D	2-INCH ELECTRICAL CONDUIT (LIN. FT.)	LIN. FT.	~~240~~ 259
3A	PEDESTRIAN SIGNAL FACE (16) (EACH)	EA	~~4~~ 5
3A	TRAFFIC SIGNAL FACE (8-8-8) (EACH)	EA	8
3A	TRAFFIC SIGNAL FACE (12-8-8) (EACH)	EA	7
3B	TRAFFIC SIGNAL CONTROLLER CABINET (EACH)	EA	1
3A	TRAFFIC SIGNAL SIGN FACE (12-12-12) (EACH)	EA	1
3B	COORDINATION UNIT (EACH)	EA	1
3J	LOOP DETECTOR WIRE (LIN. FT.)	LIN. FT.	~~500~~ 1,000
3J	TRAFFIC SIGNAL VEH. DETECTOR AMPLIFIER (LOOP TYPE) (EACH)	EA	5
3E/3F	TRAFFIC SIGNAL-LIGHT POLE STEEL (1 MAST ARM) (EACH)	EA	2
3E/3F	TRAFFIC SIGNAL-LIGHT POLE STEEL (2 MAST ARM) (EACH)	EA	1
3B	TRAFFIC SIGNAL CONTROLLER (SOLID STATE) (FULL-ACTUATED) (2 PHASE) (EACH)	EA	1
3E	TRAFFIC SIGNAL-LIGHT POLE STEEL	EA	1

NOTES:

1. MAST ARM POLES TO BE 3 GAUGE 12" ANCHOR BASE TAPERED STEEL WITH 10' STREET LIGHT ARM LUMINAIRE BY P.S.C.O.
2. CONTROLLER TO BE 2 PHASE FULL ACTUATED IN M-1 CABINET MOUNTED ON TYPE VII BASE.
3. CONTRACTOR TO COORDINATE CONDUIT INSTALLATION WITH P.S.C.O. FOR JOINT USE OF TRENCH

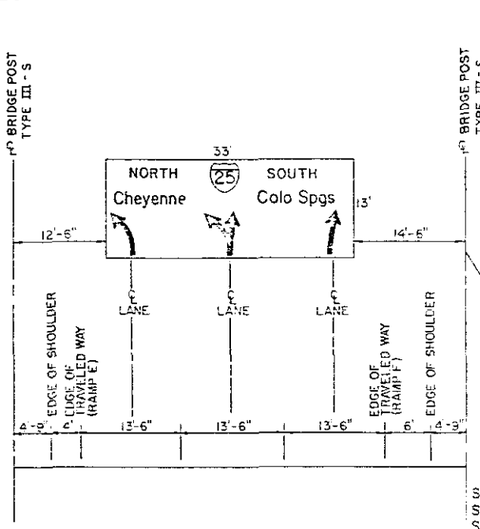
SIGNAL PHASING



TRAFFIC SIGNAL PLAN

AS CONSTRUCTED					
NO REVISIONS [ ]	REVISED [ ]	VOID [ ]			

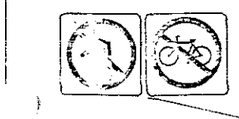
FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR25-2(191)	73	24



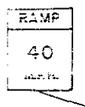
⑦ STA. 600+00 RAMP E
STA. 707+63 RAMP F
STR. NO. F-16-PQ
60' SPAN
(FOOTINGS IN PLACE)

100' 50' 0' 100'
75' 25' 200'
ORIGINAL SCALE 1"=100'

SIGNS MARKED [ ]
ARE TO REMAIN IN PLACE



EXIT



RIGHT LANE MUST EXIT

REMOVE OVERHEAD SIGN STRUCTURE

℄ BRIDGE POST

② STA. 42+20 (6TH AVE) EB

W. 6th Ave.

BRYANT ST.

EXISTING LIGHT STANDARD

470' DIRECT BURIAL CABLE

SEE LIGHTING PLAN FOR POWER SOURCE

24M3-10 | 24M3-3a
24MI-11(25) | 24MI-11(25)
21M6-2a(L) | 21M6-2a(R)

NORTH 25 | SOUTH 25

(STUB POST EXISTING)

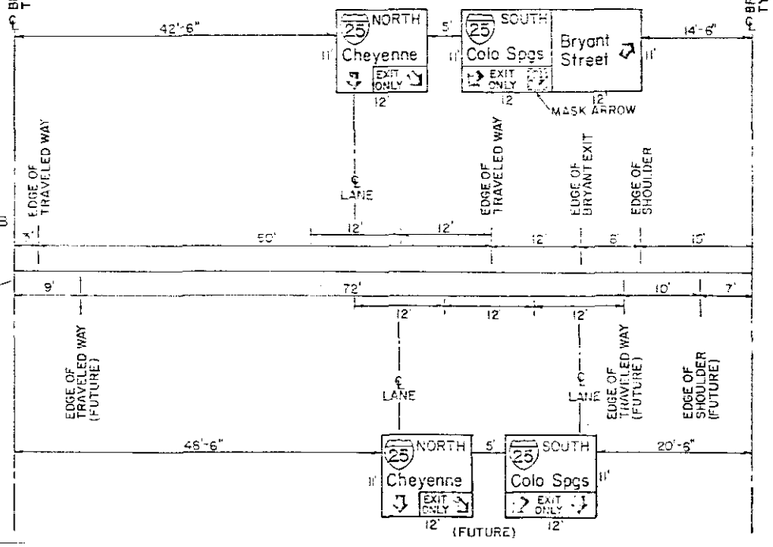
48W4-2B

48RI-2

RAMP 'E'
RAMP 'C'
RAMP 'F'
RAMP 'G' (FUTURE)
I-25

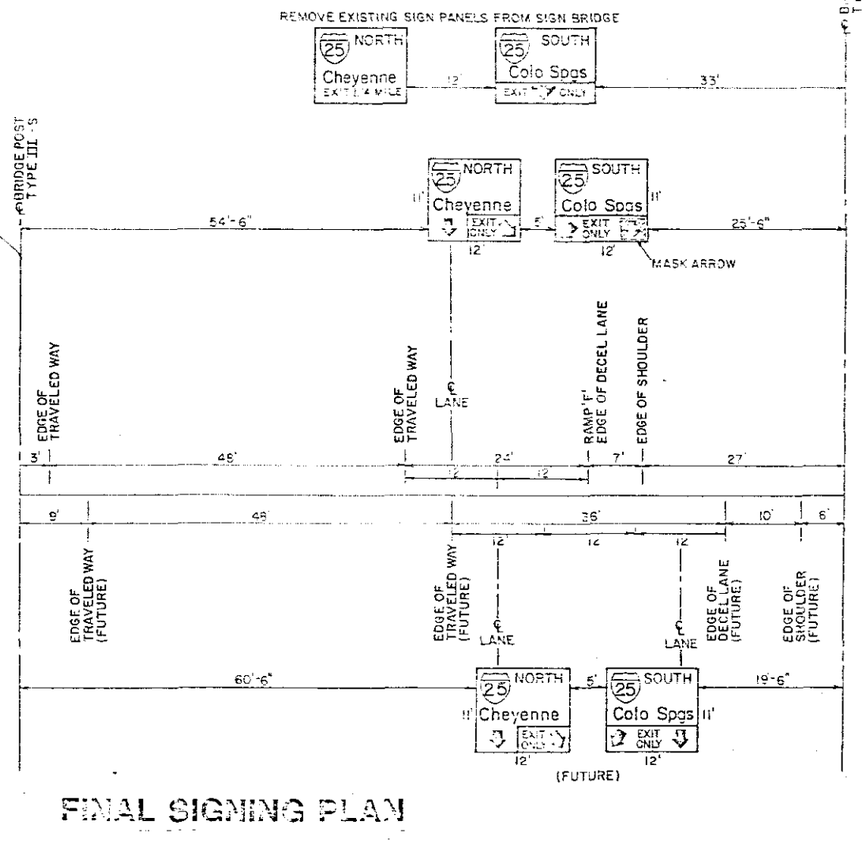
280 285 290 295
610 605 715 720 725 730
400 410 710 705

③ STA. 80+10 (6TH AVE) EB
STR. NO. F-16-NP (EXISTING)
109' SPAN



① STA. 41+00 (6TH AVE) EB
STR. NO. F-16-PP
98' SPAN

REMOVE EXISTING SIGN PANELS FROM SIGN BRIDGE



FINAL SIGNING PLAN

AS CONSTRUCTED						
NO REVISIONS 7-21-89	REVISED	VOID	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
			VIII	COLO.	IR25-2(191)	74	242

EXITS 209A-B
6 WEST
6th Ave
1/2 MILE
REMOVE

NORTH
25

30'-DIRECT BURIAL CABLE

65'-DIRECT BURIAL CABLE

70'-2 INCH ELEC. COND. (JACKED)

STA. 311+75 L.C.L.(I-25)N.B.
STR. NO. F-16-PV
102' SPAN

STA. 324+75 LCL(I-25) NB
STR. NO. F-16-PW
BALANCED BUTTERFLY

20'

6th Avenue	3/4
8th Avenue	1
Colfax Avenue	1 1/2

7'

6'

TYPE II-S POST

EDGE OF TRAVELED WAY

I-25

ALAMEDA AVE.

80'-DIRECT BURIAL CABLE

70'-2 INCH ELEC. COND.

EXITS 209A-B
6 WEST
6th Avenue
1 MILE

CENTER OVER I-25 N.B. LANES
MOUNT ON ALAMEDA AVENUE
BRIDGE STRUCTURE (SEE OVERPASS MOUNTED SIGN BRACKET DETAIL)

(BRIDGE POST TYPE III-S)

EXIT 209C
8th Avenue
3/4 MILE

EXITS 209A-B
6 WEST
6th Avenue
1/2 MILE

BRIDGE POST TYPE III-S

27' 11' 11' 48'

6' 48' 9' 39'

EDGE OF TRAVELED WAY
EDGE OF TRAVELED WAY
EDGE OF SHOULDER

13' 60' 12' 10' 7'

EDGE OF TRAVELED WAY (FUTURE)
EDGE OF TRAVELED WAY (FUTURE)
EDGE OF AUX. LANE (FUTURE)
EDGE OF SHOULDER (FUTURE)

SIGNS MARKED [ ] ARE TO REMAIN IN PLACE

ALL SIGNS NOT SHOWN ARE TO REMAIN IN PLACE

100 50' 0' 100'
75 25' 200'
ORIGINAL SCALE: 1" = 100'

FINAL SIGNING PLAN

AS CONSTRUCTED					
NO REVISIONS	REVISED	VOID			

FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR25-2(191)	75	

ORIGINAL SCALE: 1" = 100'

60" RIGHT LANE MUST EXIT SPECIAL MOUNT ON SIGN BRIDGE POST

110'-2" CONDUIT (CONNECT FROM UNDERPASS LIGHTING)

RESET EXIT 25 M.P.H.

EXIT 209B WEST 6th Ave WEST — REMOVE FROM 6TH AVE. BRIDGE STRUCTURE

EXIT 209A

RAMP 'E'

RAMP 'C'

RAMP 'F'

I-25

EXIT 209A

EXIT 30 M.P.H.

STR. NO F-15-MS

UNMASK LEGEND

REMOVE

48W4-2L

CAR POOL INFO 445-POOL

YIELD — REMOVE

48" RIGHT LANE MUST EXIT 500 FT 48R3-7R SPECIAL

℄ BRIDGE POST TYPE III-S

EXIT 209C 8th Avenue — EXIT 209B WEST 6th Ave-West EXIT ONLY

(FUTURE SIGN PANELS AND SIGN BRIDGE LOCATION)

STA. 282+00 LCL (I-25) NB
STR. NO. F-15-TY (EXISTING)
75' SPAN

STA. 277+92 LCL (I-25) NB
STR. NO. F-15-PR
106' SPAN

W. 6th Ave.

BRYANT ST.

℄ BRIDGE POST TYPE III-S

46'-7" — 44' — 35'-5" — 60' — 2'-5"

EDGE OF TRAVELED WAY — EDGE OF TRAVELED WAY — EDGE OF LANE EXIT LANE EDGE OF SHOULDER

EDGE OF TRAVELED WAY (FUTURE) — EDGE OF TRAVELED WAY (FUTURE) — EDGE OF LANE (FUTURE) — EDGE OF SHOULDER (FUTURE)

EXIT 209C 8th Avenue — EXIT 209B WEST 6th Ave-West EXIT ONLY

(FUTURE)

EXIT 209C Zuni St W 8th Ave 1/2 MILE REMOVE — EXIT 209B WEST 6th Ave WEST 1/4 MILE REMOVE — EXIT 209A 6th Ave EAST NEXT RIGHT RESET

℄ BRIDGE POST — 41' — 60' — EDGE OF TRAVELED WAY — EDGE OF TRAVELED WAY

FINAL SIGNING PLAN

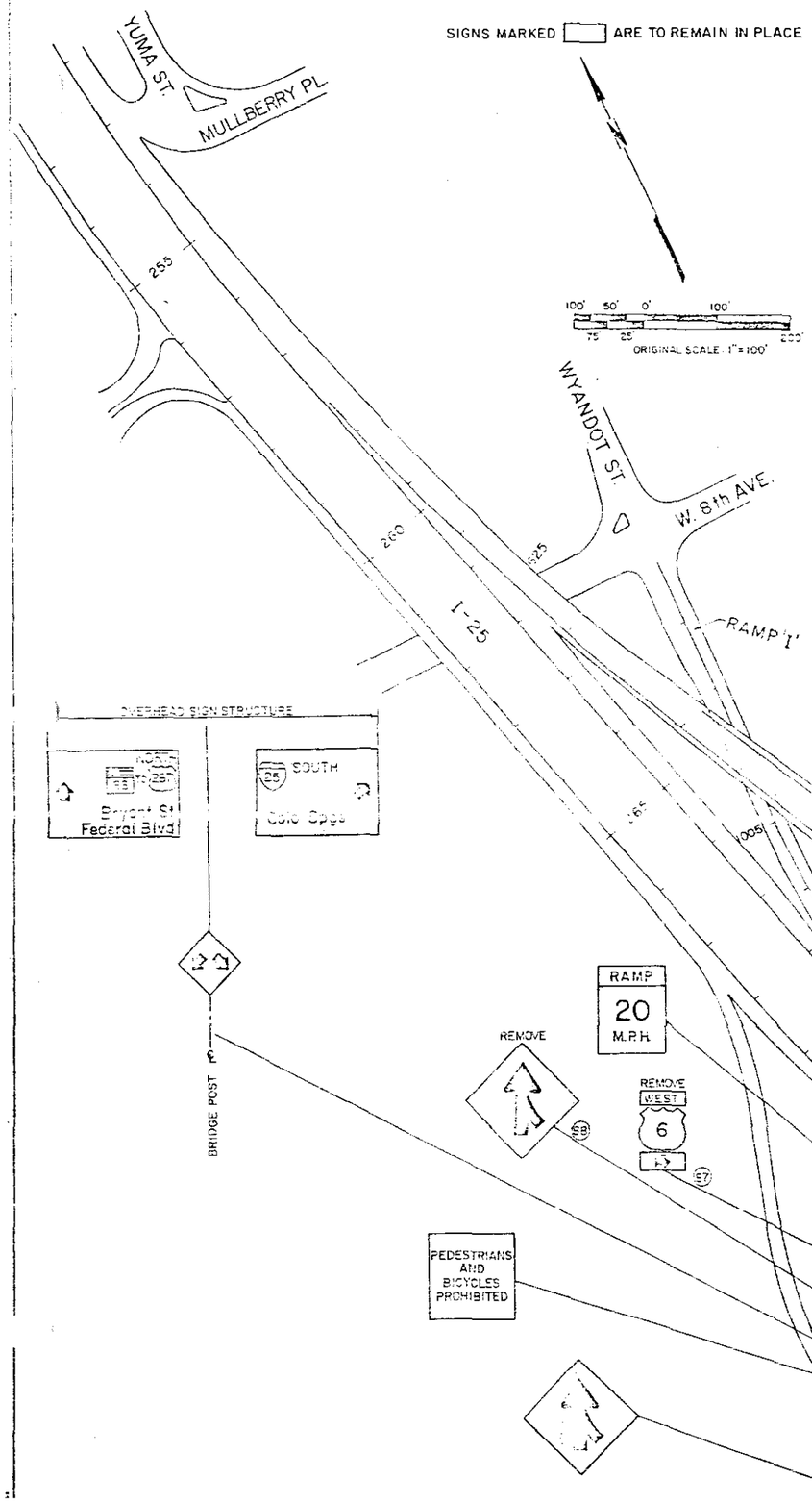
SIGNS MARKED ☐ TO REMAIN IN PLACE

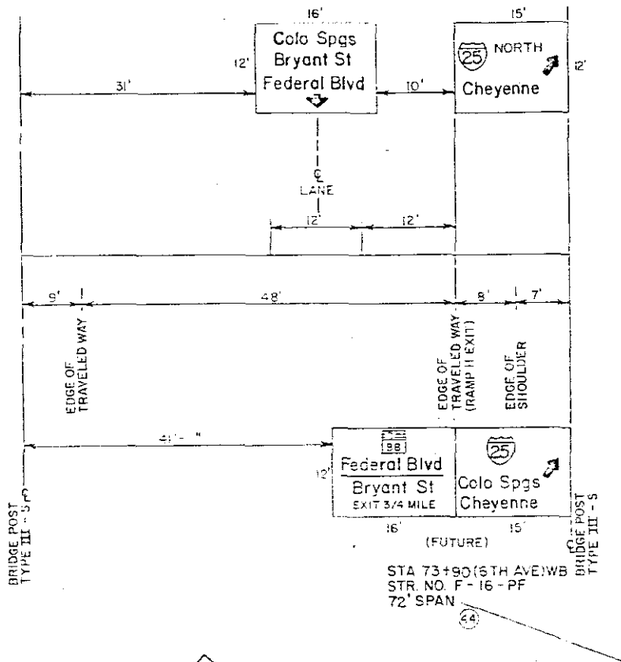
HWYS

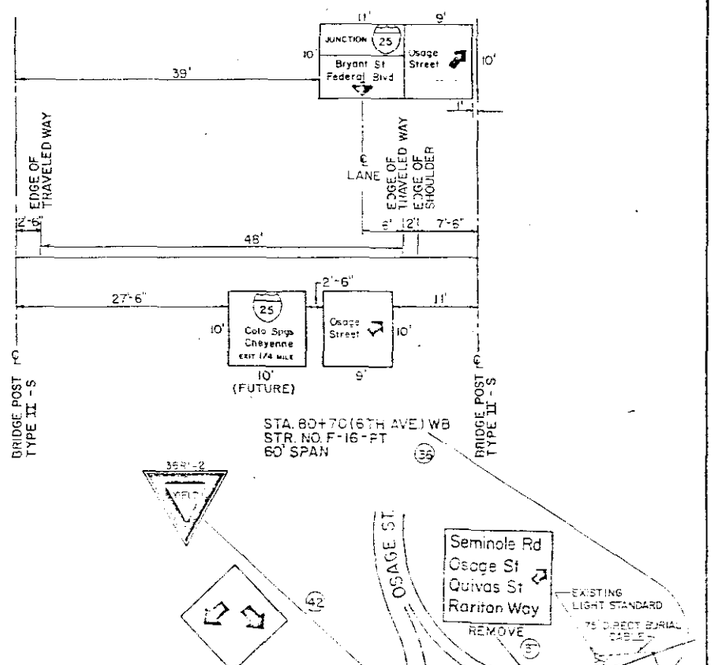
AS CONSTRUCTED						
NO REVISIONS [7-2-]	REVISED [ ]	VOID [ ]				

FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR25-2(191)	76	[illegible]

SIGNS MARKED [ ] ARE TO REMAIN IN PLACE







FINAL SIGNING PLAN

AS CONSTRUCTED					
NO REVISIONS [redacted]	REVISED		VOID		

FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR25-2(191)	77	24

48W4-1R

48W4-2R

36" LEFT 2 LANES MUST TURN LEFT — SPECIAL

WRONG WAY 36R5-1a

WRONG WAY 36R5-1a

WYANDOT ST.

W. 8th AVE.

I-25

RAMP 'I'

48W4-3R

EXIT 15 M.P.H. REMOVE

EXIT 209C

STA. 255+20 L.C.L.(I-25)NB
STR. NO. F-16-T(EXISTING)
85' SPAN

EXIT 210C — Aurora Parkway 1/2 MILE

REMOVE SIGN PANEL EXIT 209C — 8th Avenue

5' 48' 12' 12' 10' 5'
85' SPAN

℄ POST & MEDIAN

℄ POST

TYPE III POST

EXIT 209C — 8th Avenue

2' 6' 13' 15'
EDGE OF TRAVELED WAY | EDGE OF RAMP I EXIT | EDGE OF SHOULDER
15' 6' 7'

STA. 270+80 L.C.L.(I-25)N.B.
STR. NO. F-16-PU
28' SPAN

EXIT 35 M.P.H.
48W13-2(35)
MOUNT ON CANTILEVER POST

EXIT 209B

REMOVE CANTILEVER STRUCTURE

NORTH 25 CHEYENNE

BRIDGE POST

REMOVE OVERHEAD SIGN STRUCTURE

SOUTH 25 25 88 NORTH TO 287 COLO SPGS BRYANT ST FEDERAL BLVD

NORTH 25 CHEYENNE

REMOVE OVERHEAD SIGN STRUCTURE

6 40 WEST GOLDEN IDAHO SPGS

SOUTH 25 25 88 NORTH TO 287 COLO SPGS BRYANT ST FEDERAL BLVD

NORTH 25 CHEYENNE

SPEED LIMIT 55 MINIMUM 40

BRIDGE POST

BRIDGE POST

STA. 72+10 (6TH AVE.) WB

STA. 68+00 (6TH AVE.) EB

STA. 67+70 (6TH AVE.) WB

REMOVE

RAMP 'E'

RAMP 'H'

HIGH MAST #2 (EXISTING)

180'-2" CONDUIT

25'-2" CONDUIT

35'-2" CONDUIT (MARKED)

6TH AVE.

OSAGE ST.

100' 50' 0' 100'
75' 25' 200'
ORIGINAL SCALE IN FEET

SIGNS MARKED [redacted] ARE TO REMAIN IN PLACE

REMOVE RAMP 20 M.P.H.

REMOVE EXIT

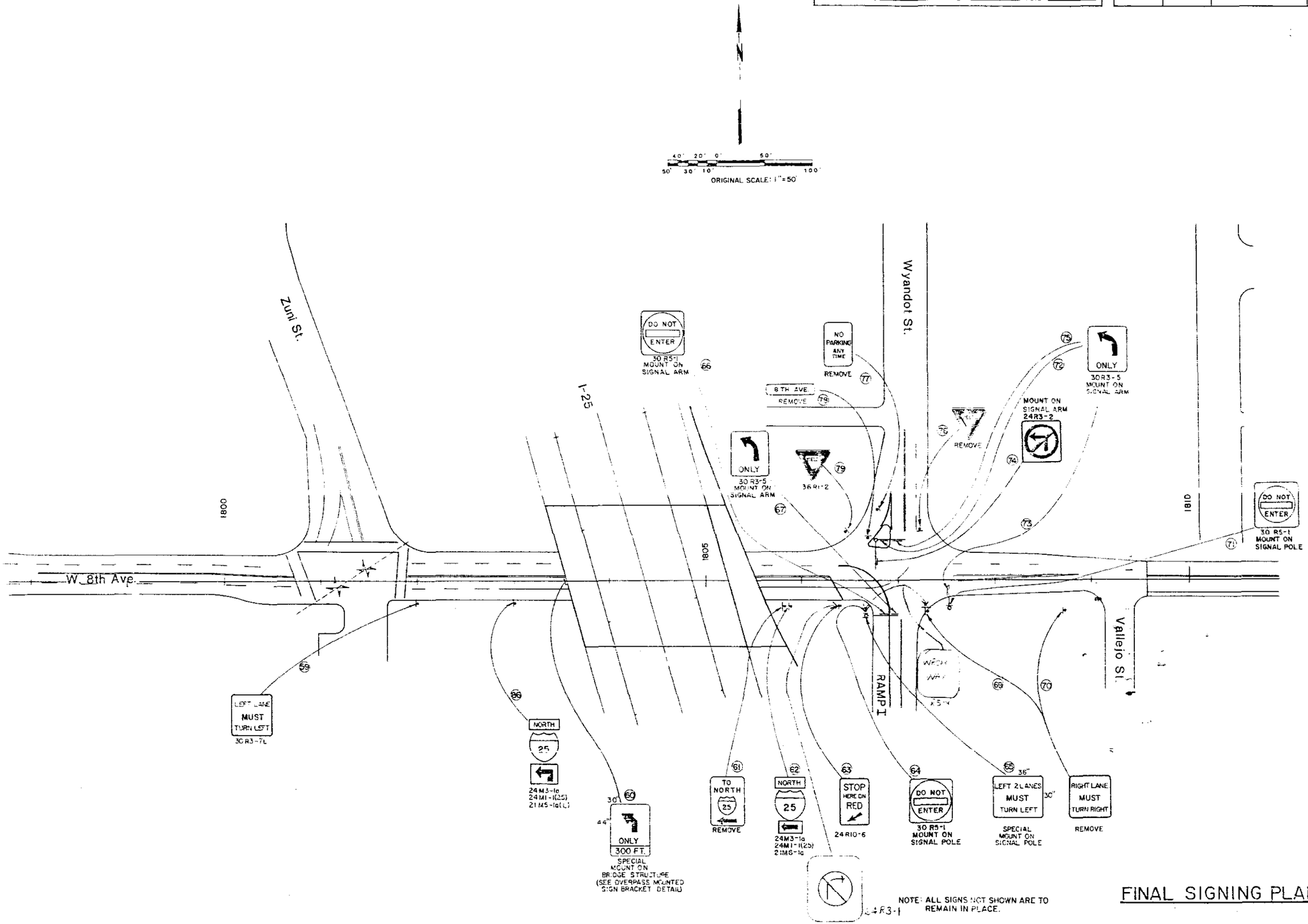
REMOVE PEDESTRIANS AND BICYCLES PROHIBITED

SEMINOLE ST
OSAGE ST
QUIVAS ST
RARITAN WAY

FINAL SIGNING PLAN

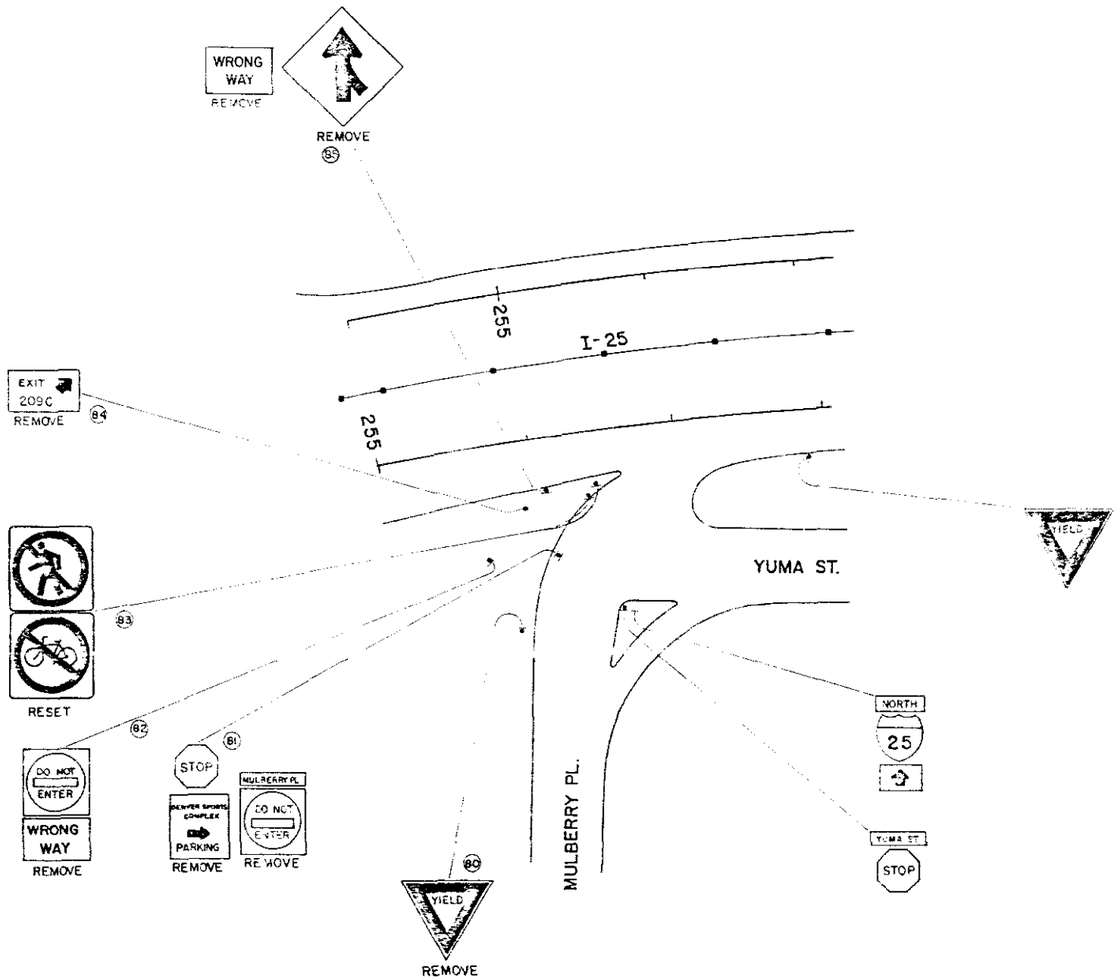
OF COLORADO
DEPARTMENT OF HIGHWAYS
ON OF HIGHWAYS
H. FORM NO. 126
EB. 1984

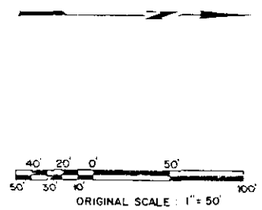
AS CONSTRUCTED								
NO REVISIONS		REVISED		VOID				
FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR25-2(191)	78	242



FINAL SIGNING PLAN

AS CONSTRUCTED						
NO REVISIONS [ ] REVISED [ ] VOID [ ]	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
	VIII	COLO.	IR25-2(191)	79	242



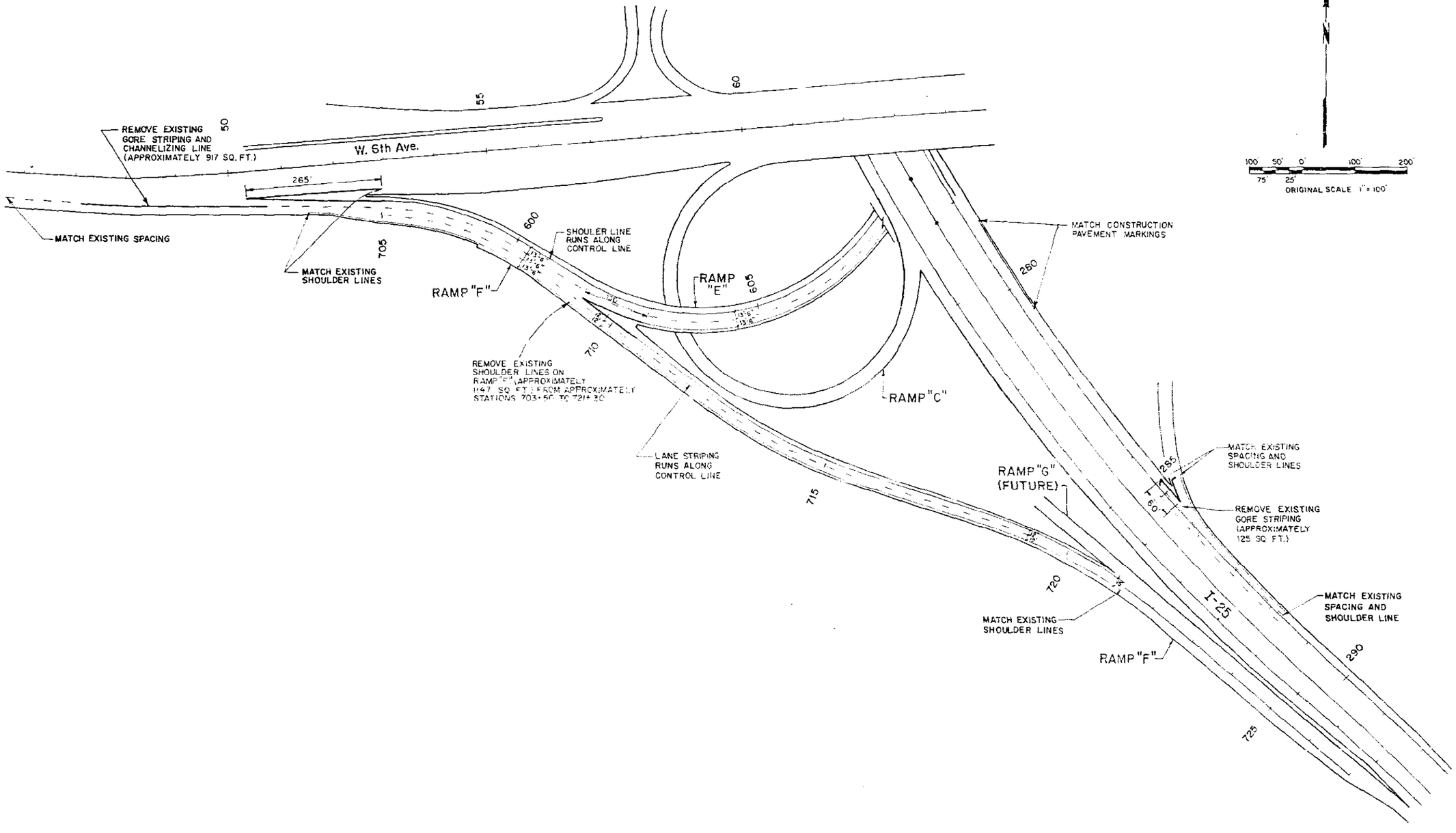


SIGNS NOT SHOWN SHALL REMAIN IN PLACE
SIGNS MARKED [ ] ARE TO REMAIN IN PLACE

FINAL SIGNING PLAN

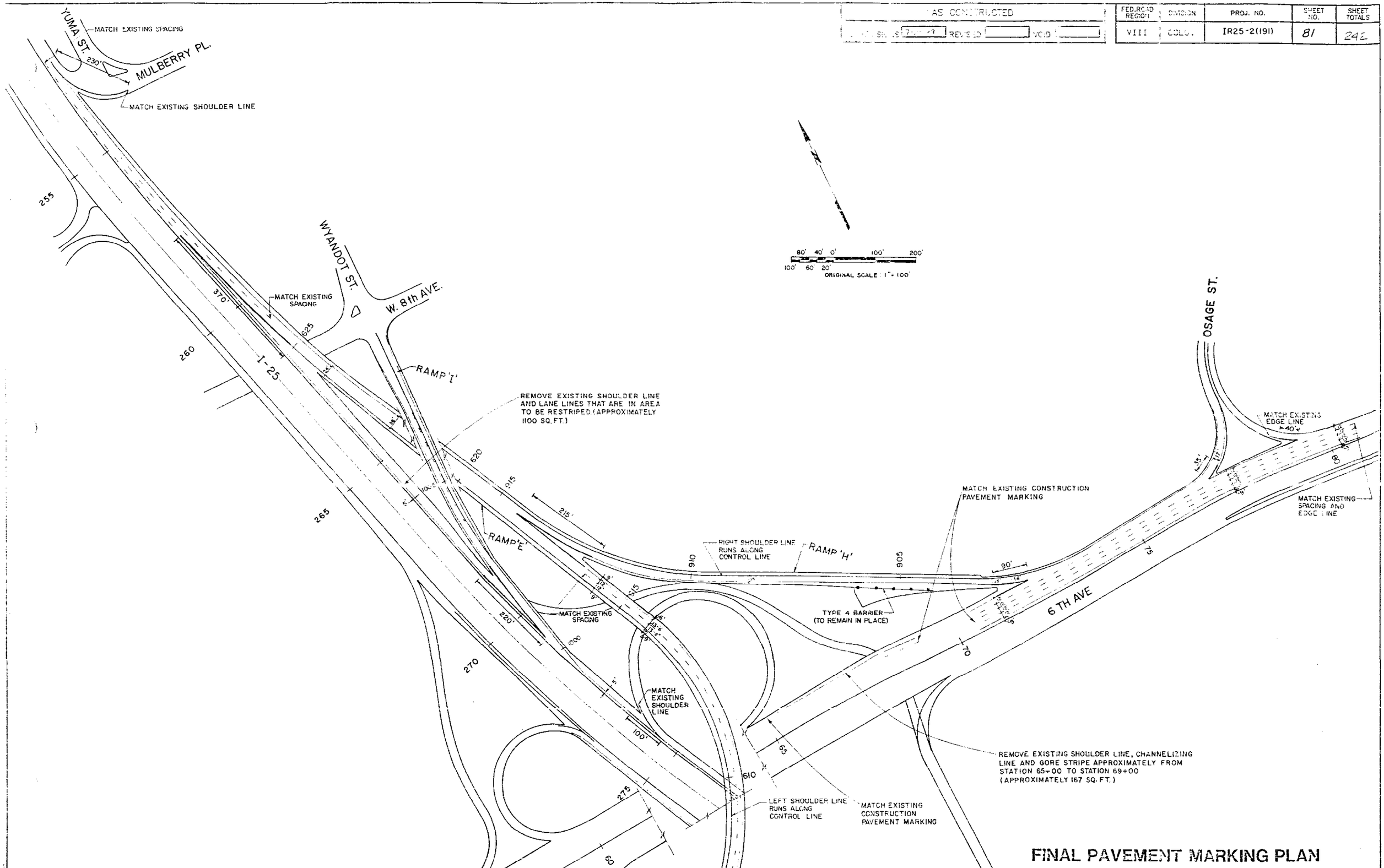
AS CONSTRUCTED							
NO REVISIONS		REVISED		VOID			

FED.ROAD REGION	STATE	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR25-2(191)	80	242



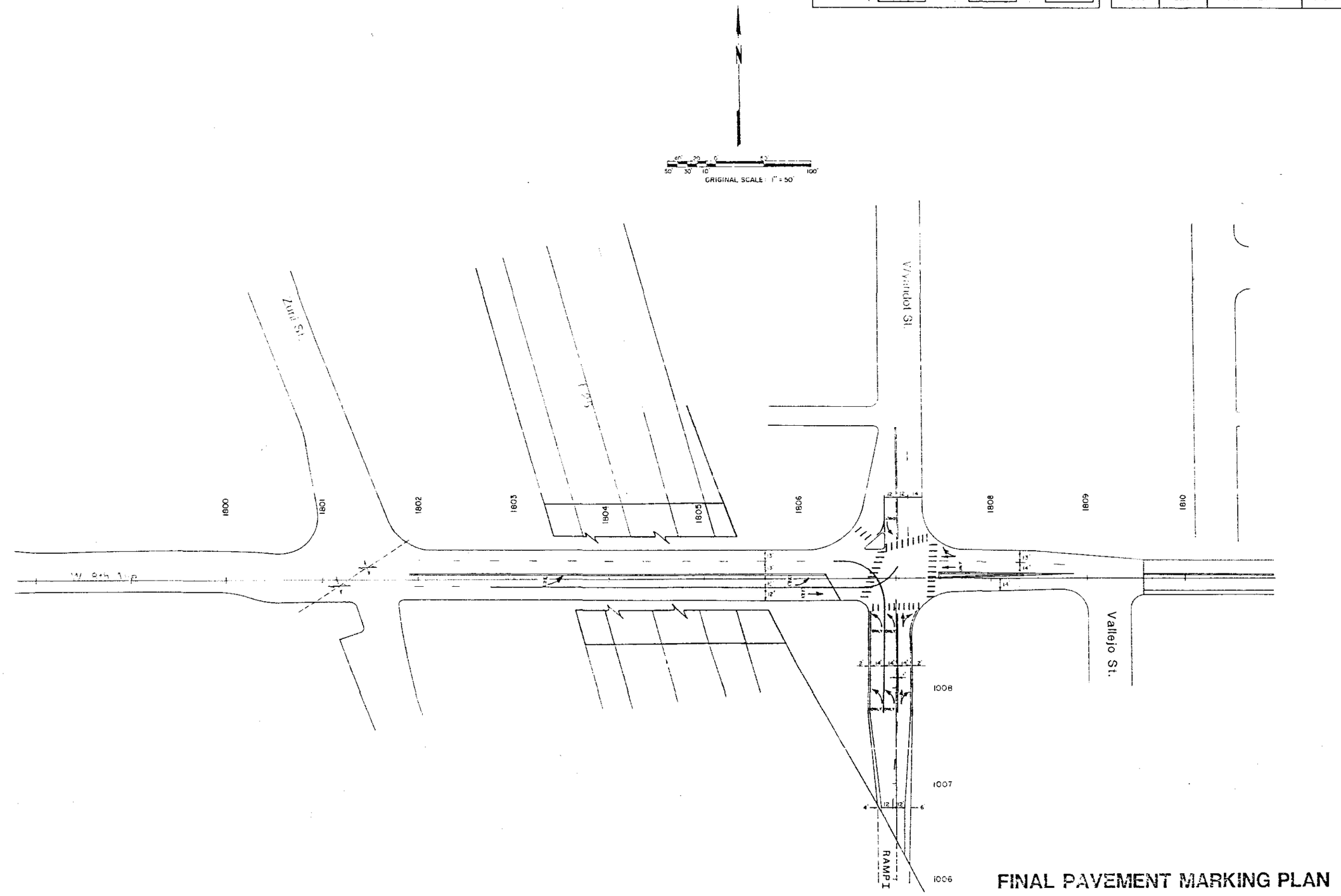
FINAL PAVEMENT MARKING PLAN

AS CONSTRUCTED						
[illegible] SHEETS [illegible]	REVISED	VOID	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
			VIII	COLO.	IR25-2(191)	81	242



FINAL PAVEMENT MARKING PLAN

7-21-09			82	242



FINAL PAVEMENT MARKING PLAN

OF COLORADO
DEPARTMENT OF HIGHWAYS
ION OF HIGHWAYS
, FORM NO. 126.
FEB. 1984

AS CONSTRUCTED						
NO REVISIONS 7-24-89	REVISED	VOID	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
			VIII	COLO.	IR 25-2(191)	83	242

RAMP 'H'

270

RAMP 'I'

RAMP 'E'

270

MATCH EXISTING
MARKINGS AND SPACING

275

600' GLARE SCREEN

392' GUARD RAIL TYPE 4 (PRECAST-PORTABLE)
W/ 8' IRE SCREEN

MATCH EXISTING
MARKINGS AND SPACING

275

280

PIER 9E

W. 6TH AVE.

PIER 9G

RAMP 'E'

260

RAMP 'C'

285

40' 20' 0 100'
50' 30' 10' 50'
ORIGINAL SCALE 1"=50'

NOTES:

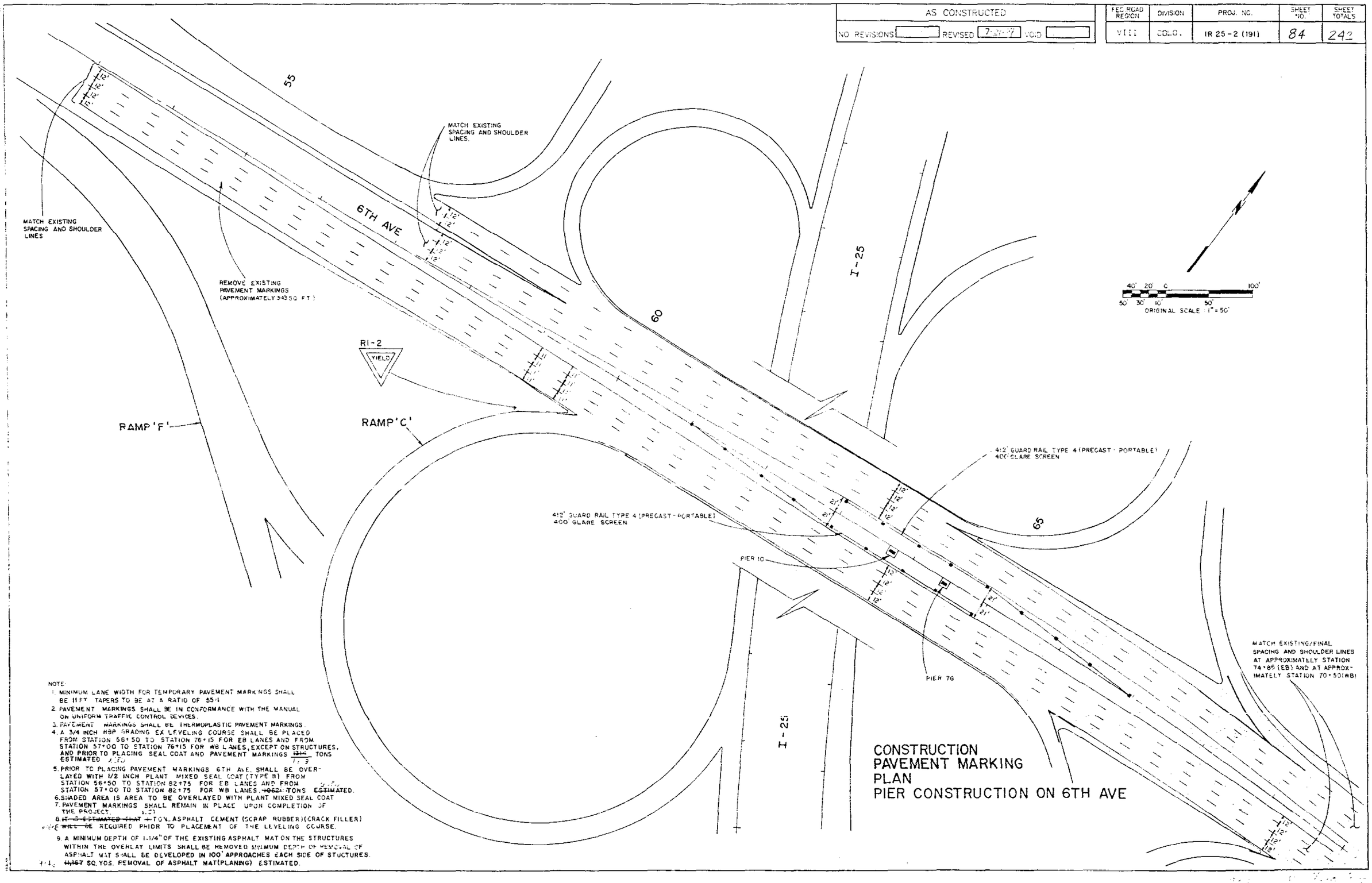
1. MINIMUM LANE WIDTH FOR PAVEMENT MARKINGS SHALL BE 11FT. TAPERS TO BE AT A RATIO OF 50:1.
2. PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. SHADED AREA TO BE OVERLAYED WITH 1/2 INCH PLANT MIXED SEAL COAT (TYPE B) PRIOR TO CONSTRUCTION STRIPING. 619 TONS ESTIMATED.
4. PAVEMENT MARKINGS SHALL BE THERMOPLASTIC AND SHALL REMAIN IN PLACE UPON COMPLETION OF THE PROJECT.

CONSTRUCTION PAVEMENT MARKING PLAN PIER CONSTRUCTION ON I-25

OF COLORADO
DEPARTMENT OF HIGHWAYS
ION OF HIGHWAYS
FORM NO. 126
EB. 1984

AS CONSTRUCTED						
NO REVISIONS		REVISED	7-20-92	VOID		

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2 (191)	84	242



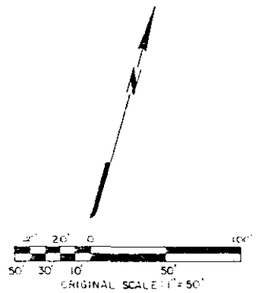
CONSTRUCTION PAVEMENT MARKING PLAN
PIER CONSTRUCTION ON 6TH AVE

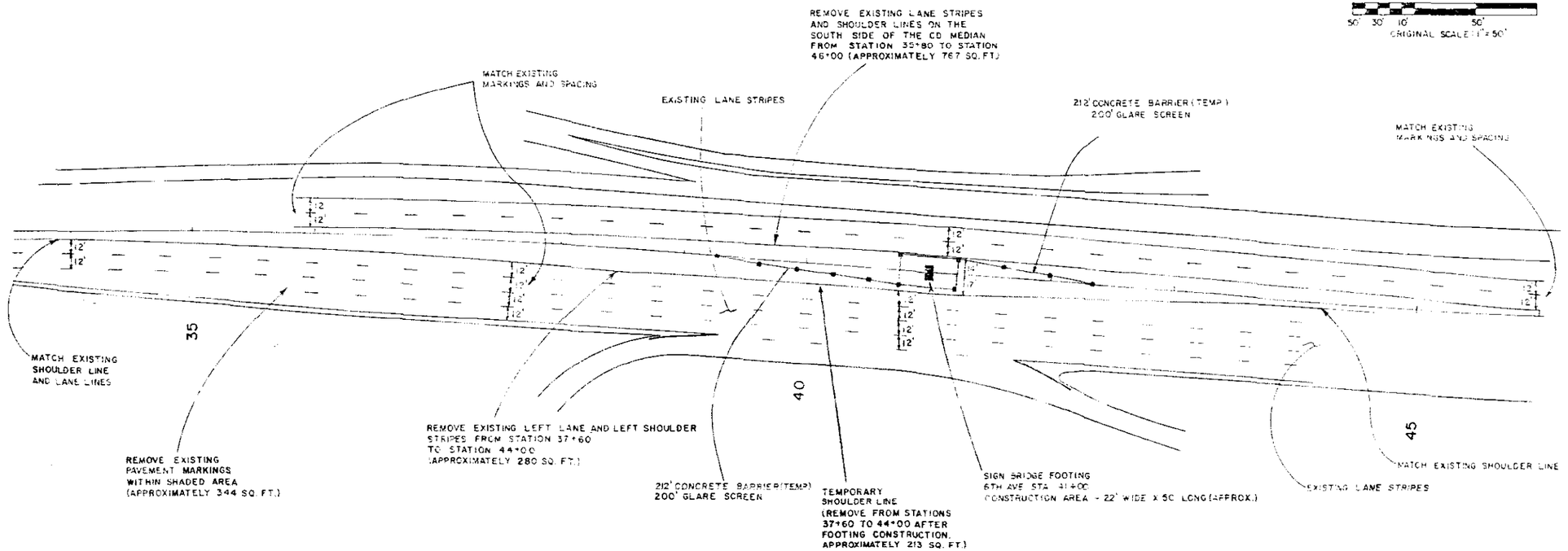
NOTE:

1. MINIMUM LANE WIDTH FOR TEMPORARY PAVEMENT MARKINGS SHALL BE 11 FT. TAPERS TO BE AT A RATIO OF 55:1
2. PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. PAVEMENT MARKINGS SHALL BE THERMOPLASTIC PAVEMENT MARKINGS.
4. A 3/4 INCH HBP GRADING EX LEVELING COURSE SHALL BE PLACED FROM STATION 56+50 TO STATION 76+15 FOR EB LANES AND FROM STATION 57+00 TO STATION 76+15 FOR WB LANES, EXCEPT ON STRUCTURES, AND PRIOR TO PLACING SEAL COAT AND PAVEMENT MARKINGS ~~1515~~ 1513 TONS ESTIMATED. ~~1470~~ 1473
5. PRIOR TO PLACING PAVEMENT MARKINGS 6TH AVE. SHALL BE OVERLAYED WITH 1/2 INCH PLANT MIXED SEAL COAT (TYPE B) FROM STATION 56+50 TO STATION 82+75 FOR EB LANES AND FROM STATION 57+00 TO STATION 82+75 FOR WB LANES. ~~1062~~ 1076 TONS ESTIMATED.
6. SHADED AREA IS AREA TO BE OVERLAYED WITH PLANT MIXED SEAL COAT
7. PAVEMENT MARKINGS SHALL REMAIN IN PLACE UPON COMPLETION OF THE PROJECT. ~~1.63~~ 1.63
8. ~~IT IS ESTIMATED THAT~~ 4 TON ASPHALT CEMENT (SCRAP RUBBER) (CRACK FILLER) ~~TYPE WILL BE~~ REQUIRED PRIOR TO PLACEMENT OF THE LEVELING COURSE.
9. A MINIMUM DEPTH OF 1-1/4" OF THE EXISTING ASPHALT MAT ON THE STRUCTURES WITHIN THE OVERLAY LIMITS SHALL BE REMOVED. MINIMUM DEPTH OF REMOVAL OF ASPHALT MAT SHALL BE DEVELOPED IN 100' APPROACHES EACH SIDE OF STUCTURES.

~~11,167~~ SQ. YDS. REMOVAL OF ASPHALT MAT (PLANING) ESTIMATED.

AS CONSTRUCTED						
NO REVISIONS [7-84-11]	REVISED [ ]	NO D [ ]	FED. ROAD REGION	STATE	PROJ. NO.	SHEET NO.	SHEET TOTALS
			VIII	COLO.	IR 25-2(191)	85	242





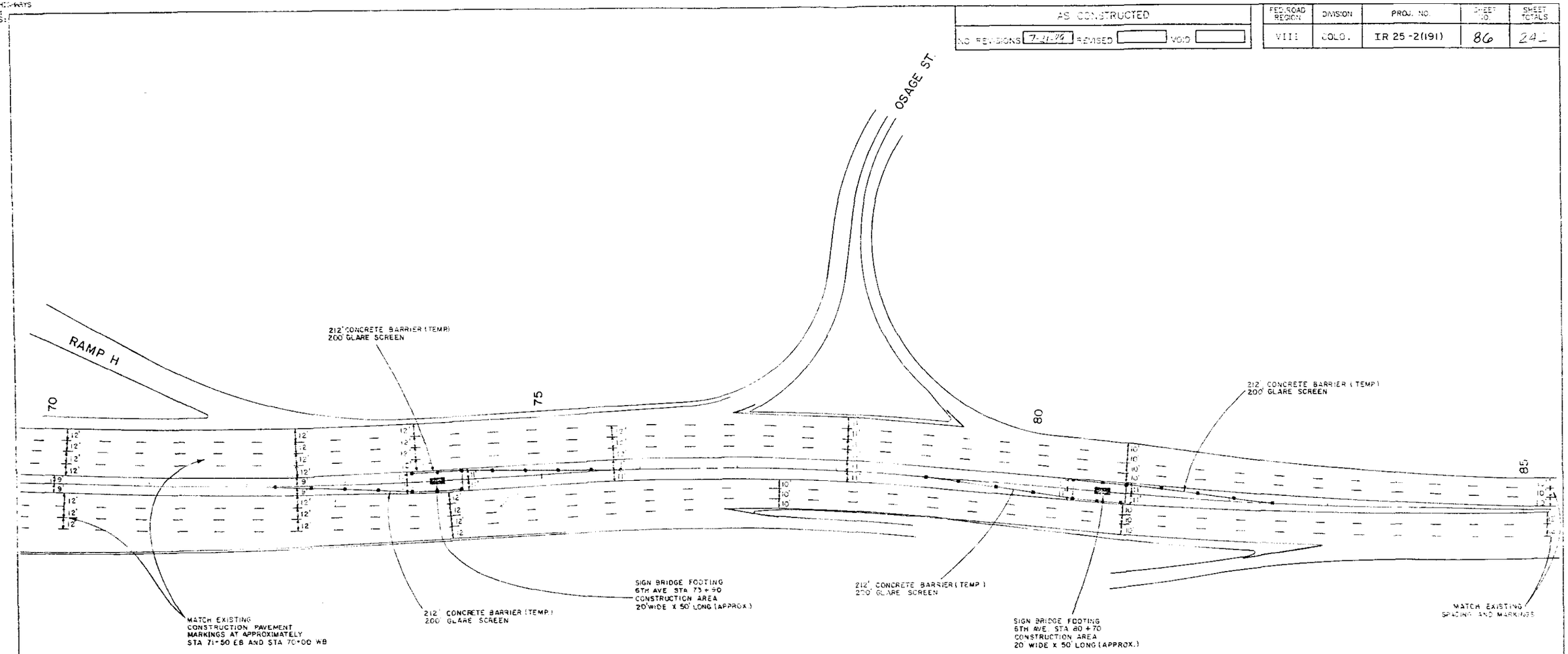
NOTES

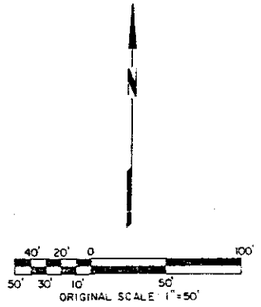
1. EXISTING PAVEMENT MARKINGS SHALL BE REPLACED WITH THERMOPLASTIC FOR SHOULDER LINES AND WITH 60 MIL PREFORMED PLASTIC FOR LANE LINES, AFTER CONSTRUCTION OF FOOTINGS
2. MINIMUM LANE WIDTH FOR TEMPURARY PAVEMENT MARKINGS SHALL BE 12 FEET. TAPERS TO BE AT A RATIO OF 55:1.
3. TEMPORARY MARKINGS SHALL BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
4. TEMPORARY PAVEMENT MARKINGS SHALL BE PAINT.
5. SHADED AREA IS AREA TO BE OVERLAYED WITH 1/2 INCH PLANT MIXED SEAL COAT (TYPE B). THE SEAL COAT SHALL BE PLACED FROM STATIONS 35+80 TO 46+00 FOR WB LANES BETWEEN THE C.D. MEDIAN AND THE ℄ MEDIAN AND FROM STATIONS 34+00 TO 37+60 FOR EB LANES 187 TONS ESTIMATED.
6. SEAL COAT SHALL BE PLACED AFTER CONSTRUCTION OF SIGN BRIDGE FOOTINGS, PAVEMENT MARKINGS SHALL BE RETURNED TO EXISTING PAVEMENT MARKINGS.
7. GLARE SCREEN TO BE REMOVED AND STOCKPILED ON JOB SITE AS DESIGNATED BY THE PROJECT ENGINEER AFTER CONSTRUCTION OF SIGN BRIDGE FOOTING.

PAVEMENT MARKING (TEMPORARY)
6TH AVE STA. 41+00
INSTALLATION OF SIGN BRIDGE FOOTING

F COLORADO
EPARTMENT OF HIGHWAYS
N OF HIGHWAYS
, FORM NO. 126.1
EB. 1984

AS CONSTRUCTED					
NO REVISIONS 7-21-89	REVISED	VOID	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
			VIII	COLO.	IR 25-2(191)	86	241





NOTES

1. TEMPORARY PAVEMENT MARKINGS SHALL BE PAINT.
2. MINIMUM LANE WIDTH FOR TEMPORARY PAVEMENT MARKINGS SHALL BE 10 FEET. TAPERS SHALL BE AT A RATIO OF 55:1.
3. TEMPORARY PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
4. SHADED AREA IS AREA TO BE OVERLAYED WITH 1/2 INCH PLANT MIXED SEAL COAT (TYPE B). SEE FINAL PAVEMENT MARKING PLANS FOR PAVEMENT MARKINGS TO BE PLACED WITH SEAL COAT.
5. REMOVE EXISTING PAVEMENT MARKINGS IN THE AREA THAT TEMPORARY PAVEMENT MARKINGS ARE TO BE PLACED (APPROXIMATELY 3000 SQ. FT.)
6. GLARE SCREEN TO BE REMOVED AND STOCKPILED ON JOB SITE AS DESIGNATED BY PROJECT ENGINEER AFTER CONSTRUCTION OF SIGN BRIDGE FOOTINGS.
7. REMOVE TEMPORARY PAVEMENT MARKINGS AFTER CONSTRUCTION OF SIGN BRIDGE FOOTINGS AND PLACE FINAL PAVEMENT MARKINGS (APPROXIMATELY 2975 SQ. FT. REMOVAL)

PAVEMENT MARKING PLAN (TEMPORARY)
6TH AVE. STA. 80+70 & STA. 73+90
INSTALLATION OF SIGN BRIDGE FOOTINGS

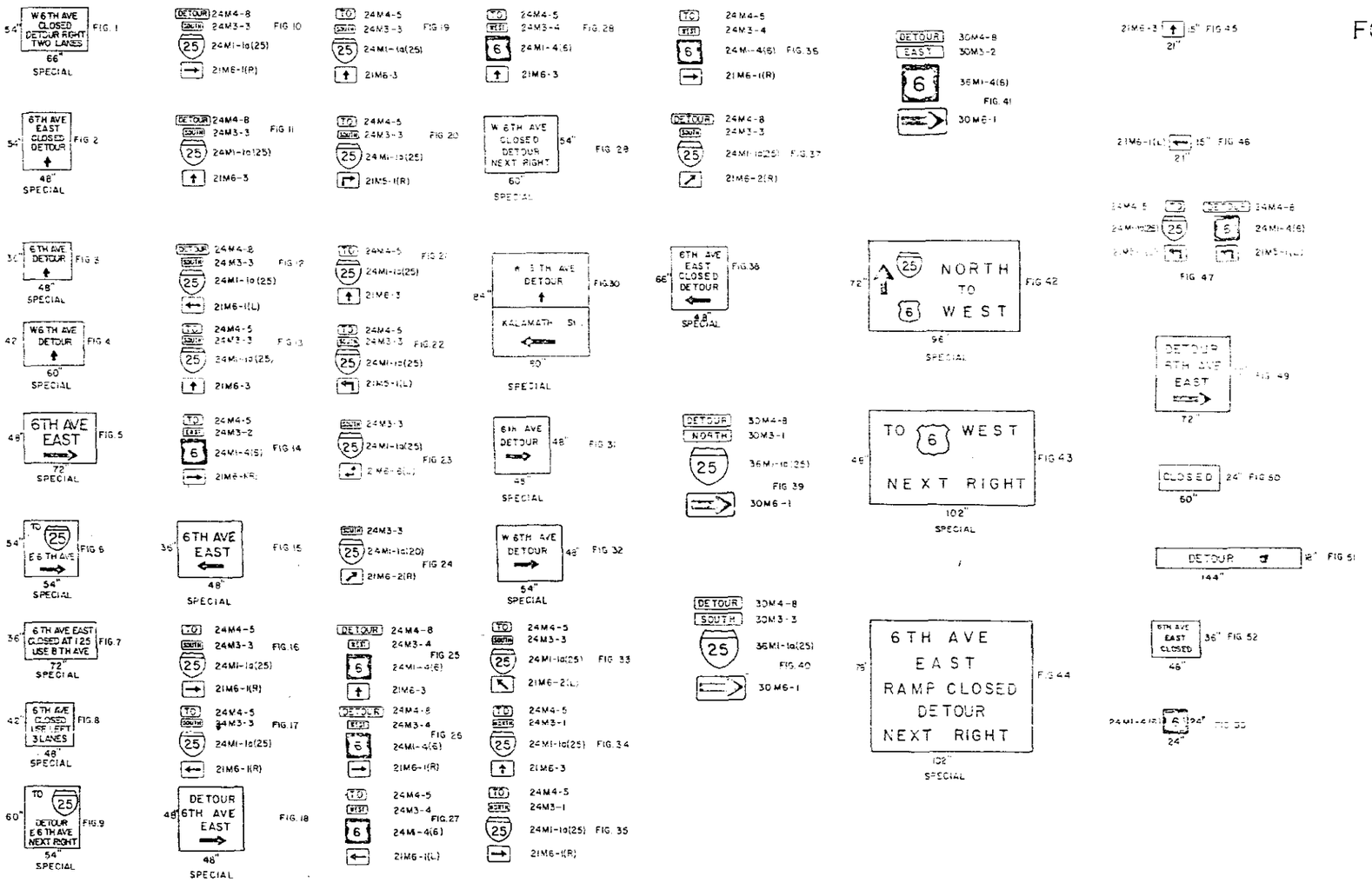
STATE OF COLORADO
STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
C. D. H. FORM NO. 128
REV. FEB. 1984

AS CONSTRUCTED						
NO REVISIONS	[ ]	REVISED	[ ]	VOID	[ ]	

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR25-2(191)	87	94

FIGURE SHEET

FOR INFORMATION ONLY

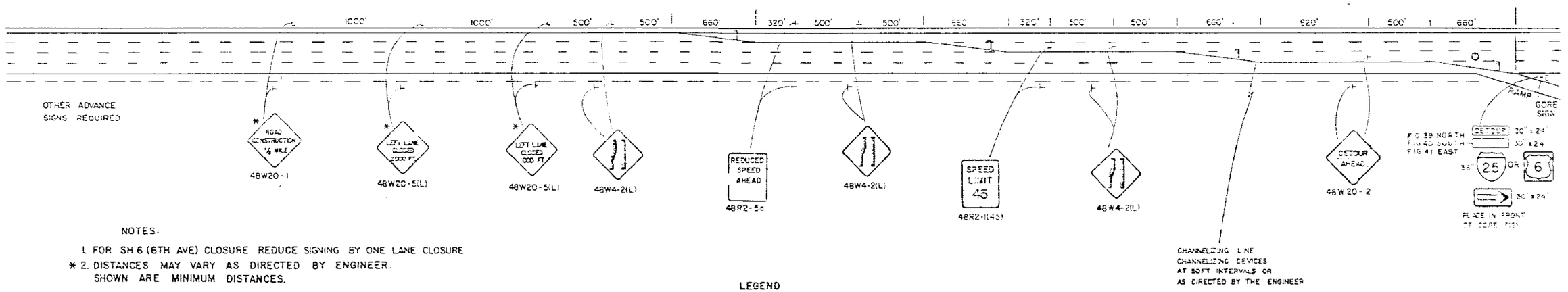


STATE OF COLORADO
THE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
C. H. FORM NO. 1264
REV. FEB. 1984

AS CONSTRUCTED	FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS ☐ REVISED ☐ VOID ☐	VIII	COLO.	IR 25-2(191)	88	

TYPICAL I 25 & S.H. 6 CLOSURE FOR DETOURS

FOR INFORMATION ONLY



NOTES:

1. FOR SH 6 (6TH AVE) CLOSURE REDUCE SIGNING BY ONE LANE CLOSURE
* 2. DISTANCES MAY VARY AS DIRECTED BY ENGINEER. SHOWN ARE MINIMUM DISTANCES.

LEGEND

- ⊢ SIGN LOCATION
- POLICE OFFICER WITH CAR
- ARROW PANEL

STATE OF COLORADO
STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
C. D. H. FORM NO. 1203
REV. FEB. 1984

I-25 & 6th Ave. DETOUR PLAN

AS CONSTRUCTED					
NO REVISIONS 7	REVISED	VOID			

FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR25-2(191)	89	

30M4-8 DETOUR
30M3-4a WEST
36MI-4a(6)
30M6-1a
Fig 26
MOUNT ON SIGN BRIDGE POST.
TO BE IN PLACE WHEN I-25 N.B. IS CLOSED OR N.E. LOOP RAMP IS CLOSED

TO 5 WEST
NEXT RIGHT
Fig 43
TO BE IN PLACE WHEN I-25 N.B. IS CLOSED OR N.E. LOOP RAMP IS CLOSED.

ROAD CLOSED
48R11-2
48M4-10(L)
MOUNTED ON 3M-A BARRICADE. TO BE IN PLACE WHEN 6TH AVE W.B. IS CLOSED.
THIS RAMP CAN REMAIN OPEN UNLESS WORK IS GOING ON OVER THIS AREA.

ROAD CLOSED
48R11-2
48M4-10(L)
MOUNT ON 3M-A BARRICADE TO BE IN PLACE WHEN 6TH AVE W.B. IS CLOSED.

FOR INFORMATION ONLY

6TH AVE EAST
RAMP CLOSED
DETOUR
NEXT RIGHT
Fig 44
TO BE IN PLACE WHEN S.W. LOOP RAMP IS CLOSED

PLACE OVER 'NEXT RIGHT'
DETOUR
Fig 51

EXIT 208A
6TH AVE EAST
NEXT RIGHT

EXIT 208B
6 WEST
6th Ave WEST
TO BE IN PLACE WHEN I-25 S.B. AND/OR S.W. LOOP RAMP IS CLOSED

Fig 49
TO BE IN PLACE WHEN I-25 S.B. AND/OR S.W. LOOP RAMP IS CLOSED
DETOUR 6TH AVE EAST

SPEED LIMIT 35
TO BE IN PLACE WHEN I-25 S.B. IS CLOSED
48R2-1(35)

Fig 28
TO 6 WEST
TO 6 WEST
Fig 36
TO BE IN PLACE WHEN 6TH AVE IS CLOSED

TO BE IN PLACE WHEN I-25 N.B. IS CLOSED
NORTH TO 6 WEST
Fig 42

6th Ave EAST
Fig. 5

DETOUR
23
Fig 37
MOUNT ON SIGN BRIDGE POST. TO BE IN PLACE WHEN I-25 S.B. IS CLOSED.

ROAD CLOSED
48R11-2
MOUNTED ON 3M-A TO BE IN PLACE WHEN S.W. LOOP RAMP IS CLOSED.

SPEED LIMIT 35
48R2-1(35)
TO BE IN PLACE WHEN E.B. 6TH AVE IS CLOSED.

Fig. 50
CLOSED

EXIT 209B
6 WEST
6th Ave WEST
TO BE IN PLACE WHEN 6TH AVE WEST IS CLOSED.

SPEED LIMIT 35
48R2-1(35)
TO BE IN PLACE WHEN I-25 N.B. IS CLOSED.

* POLICE OFFICER AND CAR REQUIRED.

- ALL SIGNS NOT SHOWN ARE TO REMAIN IN PLACE.
- ALL EXISTING SIGNS MARKED [ ] SHALL REMAIN IN PLACE FOR ALL DETOUR.

CONSTRUCTION AREA

200 0 200
ORIGINAL SCALE

STATE OF COLORADO
DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
C. H. FORM NO. 1251
REV. FEB. 1984

DETOUR PLAN

AS CONSTRUCTED	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS [ ] REVISED [ ] VOID [ ]	VIII	COLO.	IR25-2(191)	90	

Mariposa St

W 8th Ave Viaduct

Lipan St

Kalamath St

Santa Fe Dr.

30R3-7R SPECIAL
12" 500 ft
30"
TO BE IN PLACE WHEN W.B. 6th AVE IS CLOSED

FIGURE 29 — W 6TH AVE CLOSED DETOUR NEXT RIGHT
TO BE IN PLACE WHEN W.B. 6th AVE IS CLOSED

6th AVE DETOUR FIGURE 31
TO BE IN PLACE WHEN E.B. SIXTH AVE IS CLOSED

TO BE IN PLACE WHEN W.B. 6th AVE IS CLOSED
RIGHT LANE MUST TURN RIGHT
30R3-7R

TO BE IN PLACE WHEN W.B. SIXTH AVE IS CLOSED

W 6TH AVE DETOUR FIG 30
KALAMATH ST

FIGURE 33 — TO — 25 — FIG 34 — TO
TO BE IN PLACE WHEN W.B. SIXTH AVE IS CLOSED

KALAMATH ST SOUTH
6TH AVE WEST
STEELWAY
6TH AVE WEST

W 6th AVE DETOUR FIGURE 4

FIGURE 35 — TO SOUTH — 25 — TO WEST
TO BE IN PLACE WHEN W.B. 6th AVE IS CLOSED

TO WEST — 6 — FIG 28
TO BE IN PLACE WHEN 6TH AVE IS CLOSED

6TH AVE WEST

NOTE:
THE TWO LEFT LANES ON 8TH AVE MUST BE CLOSED WHEN 6TH AVE IS CLOSED.

W 8th Ave

W 6th AVE DETOUR FIGURE 32
TO BE IN PLACE WHEN 6th AVE IS CLOSED

25 SPACING
TO BE IN PLACE WHEN W.B. 6TH AVE IS CLOSED
TO — 25 FIGURE 33

CONE OVER TO THE TWO LEFT LANES.

KALAMATH SOUTH
LEFT TWO LANES

6th AVE CLOSED USE LEFT 3 LANES FIGURE 8

* LANE CLOSURE FOR WHEN W.B. SIXTH AVE IS CLOSED

48 W 4-2 (R)

TO — WEST — 6 — FIG 27
TO BE IN PLACE WHEN 6TH AVE IS CLOSED.

W 6th AVE CLOSED DETOUR RIGHT TWO LANES FIGURE 1
TO BE LOCATED AS DIRECTED BY THE ENGINEER.

FOR INFORMATION ONLY

-ALL SIGNS NOT SHOWN SHALL REMAIN IN PLACE
-EXISTING SIGNS MARKED [ ] SHALL REMAIN IN PLACE FOR ALL DETOURS

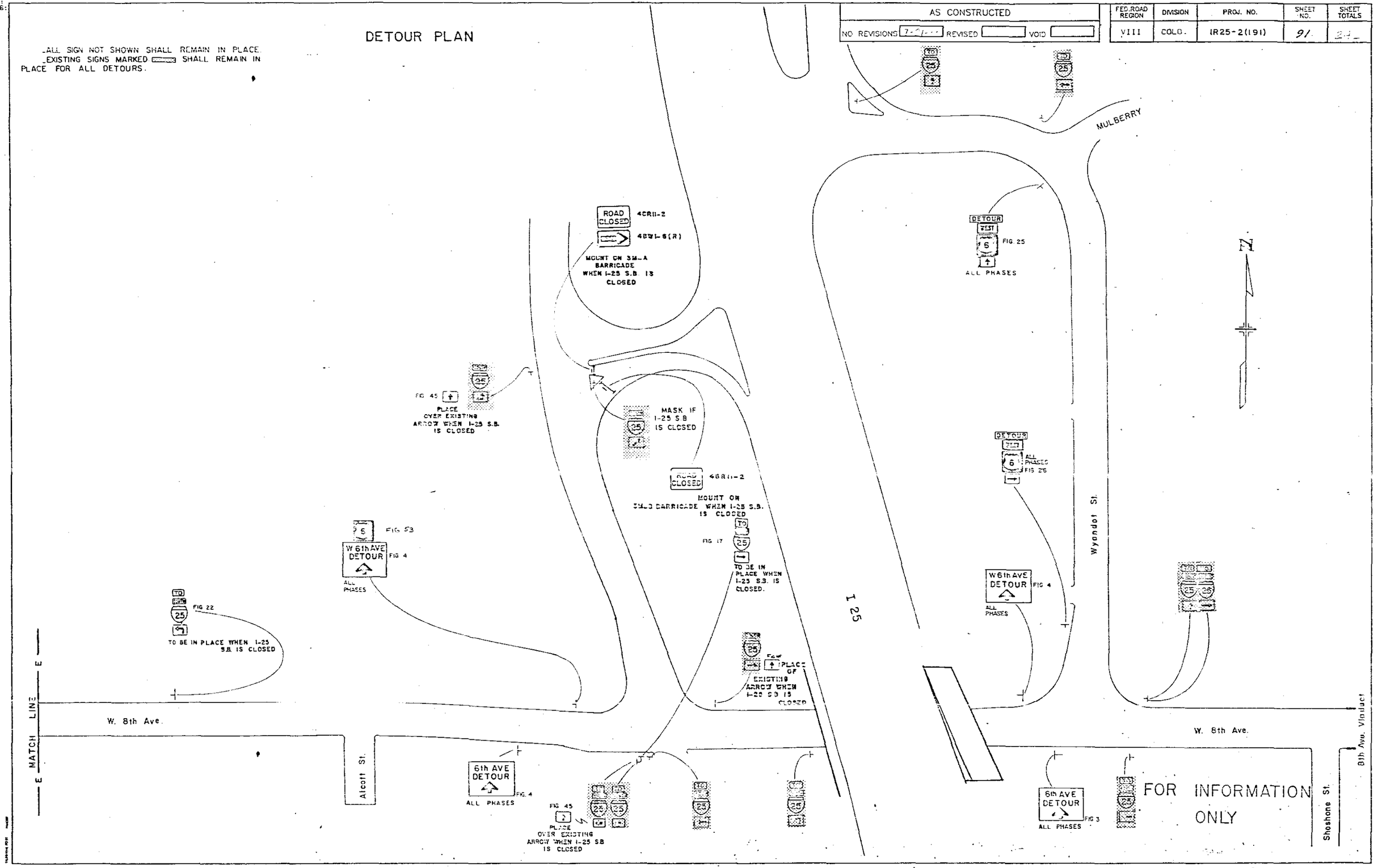
F — MATCH LINE — F

STATE OF COLORADO
DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
M. FORM NO. 126
FEB. 1984

DETOUR PLAN

ALL SIGN NOT SHOWN SHALL REMAIN IN PLACE.
EXISTING SIGNS MARKED ▭ SHALL REMAIN IN PLACE FOR ALL DETOURS.

AS CONSTRUCTED					
NO REVISIONS 7-21--	REVISED	VOID	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
			VIII	COLO.	IR25-2(191)	91	94

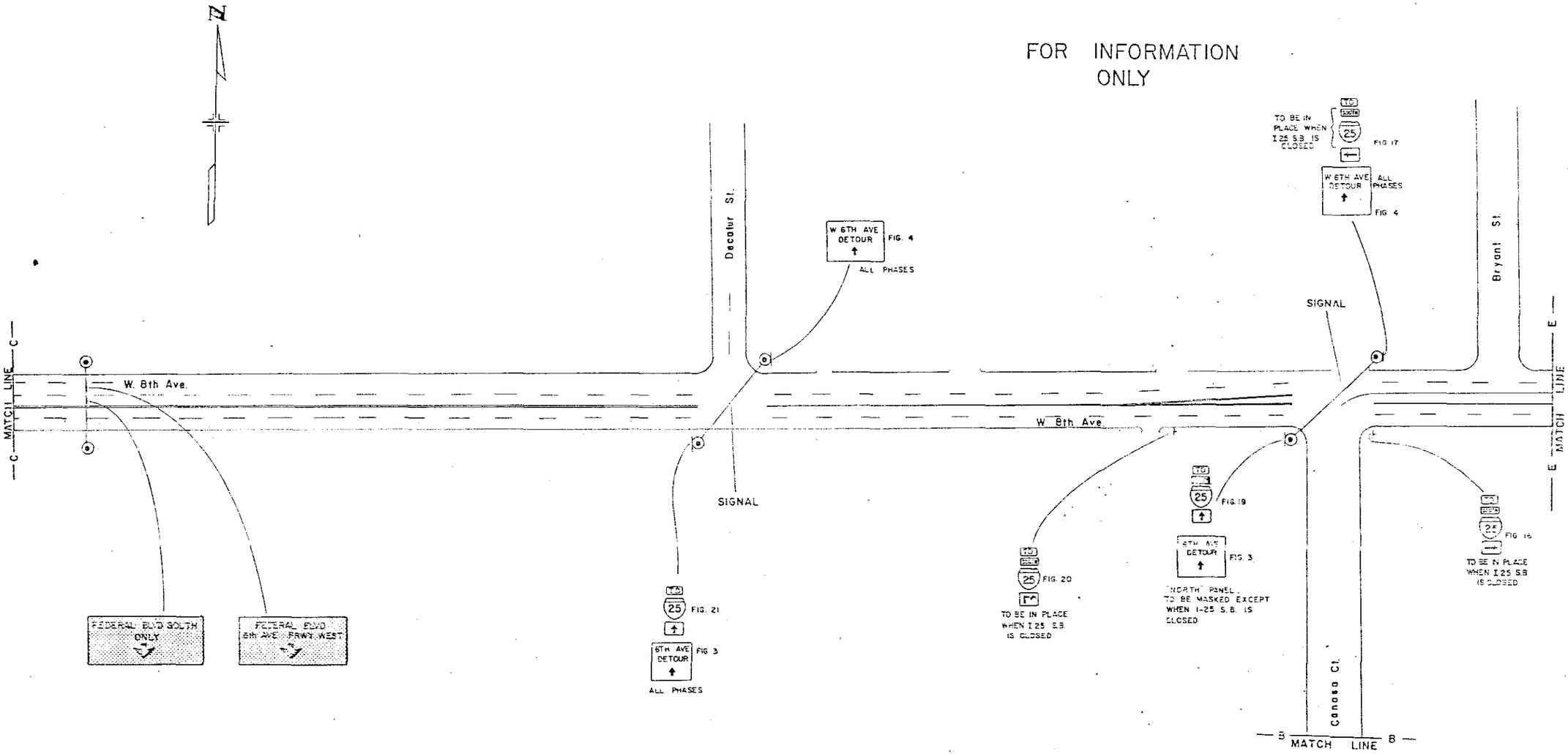


STATE OF COLORADO
DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
H. FORM NO. 126
FEB. 1984

DETOUR PLAN

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS [7]	REVISED [ ]	VOID [ ]	VIII	COLO.	IR25-2(191)	92	

FOR INFORMATION ONLY



ALL SIGNS NOT SHOWN ARE TO REMAIN IN PLACE

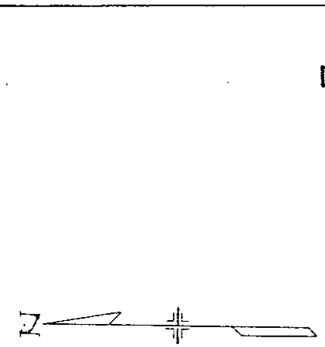
ALL EXISTING SIGNS MARKED [ ] SHALL REMAIN IN PLACE FOR ALL DETOURS

STATE OF COLORADO
STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
C. D. H. FORM NO. 1256
REV. FEB. 1984

DETOUR PLAN

AS CONSTRUCTED					
NO REVISIONS	REVISED	VOID	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
			VIII	COLO.	IR25-2(191)	93	

FOR INFORMATION ONLY



ALL SIGNS NOT SHOWN ARE TO REMAIN IN PLACE

ALL EXISTING SIGNS MARKED [ ] SHALL REMAIN IN PLACE FOR ALL DETOURS

STATE OF COLORADO
STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
C. H. FORM NO. 126
REV. FEB. 1984

DETOUR PLAN

AS CONSTRUCTED					
NO REVISIONS 7	REVISED	VOID	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
			VIII	COLO.	IR25-2(191)	94	

Santa Fe Dr.

MATCH LINE

W. 6th Ave.

W. 5th Ave.

W. 7th Ave

Kalamath St

48W4-2(R)

TO BE IN PLACE WHEN 6TH AVE AND/OR I25 SB IS CLOSED — FIG 19

6TH AVE EAST — FIG 15
TO BE IN PLACE WHEN 6TH AVE IS CLOSED

TO BE IN PLACE WHEN 6TH AVE IS CLOSED — FIG 28

TO BE LOCATED AT 3RD AVE AND SANTA FE DR. TO BE IN PLACE WHEN 6TH AVE IS CLOSED. — FIG 27

TO BE LOCATED AT 3RD AVE AND KALAMATH WHEN 6TH AVE IS CLOSED. — FIG 28

KALAMATH SOUTH 6TH AVE EAST ONLY

6TH AVE EXP WEST TO I25 SOUTH — RIGHT ONLY BEYOND

KALAMATH ST SOUTHBOUND ONLY

6TH AVE EXP WEST — RIGHT ONLY BEYOND

FIG 25 — COVER ARROW WHEN 6TH AVE AND/OR 125 S.B. IS CLOSED

POLICE OFFICER AND CAR

*LANE CLOSURE FOR WHEN WB 6TH AVE IS CLOSED

TO BE PLACED AS DIRECTED BY THE ENGINEER BETWEEN 6TH AVE AND ALAMEDA 5 REQUIRED — FIG 19

FIG 27 — TO BE LOCATED AT 3RD AVE AND OSAGE ST. WHEN 6TH AVE IS CLOSED.

LEGEND

- ARROW PANEL
- TRAFFIC CONE
- 165' TAPERS
- 330' TANGENTS

ALL SIGNS NOT SHOWN ARE TO REMAIN IN PLACE

ALL EXISTING SIGNS MARKED [ ] ARE TO REMAIN IN PLACE FOR ALL DETOURS

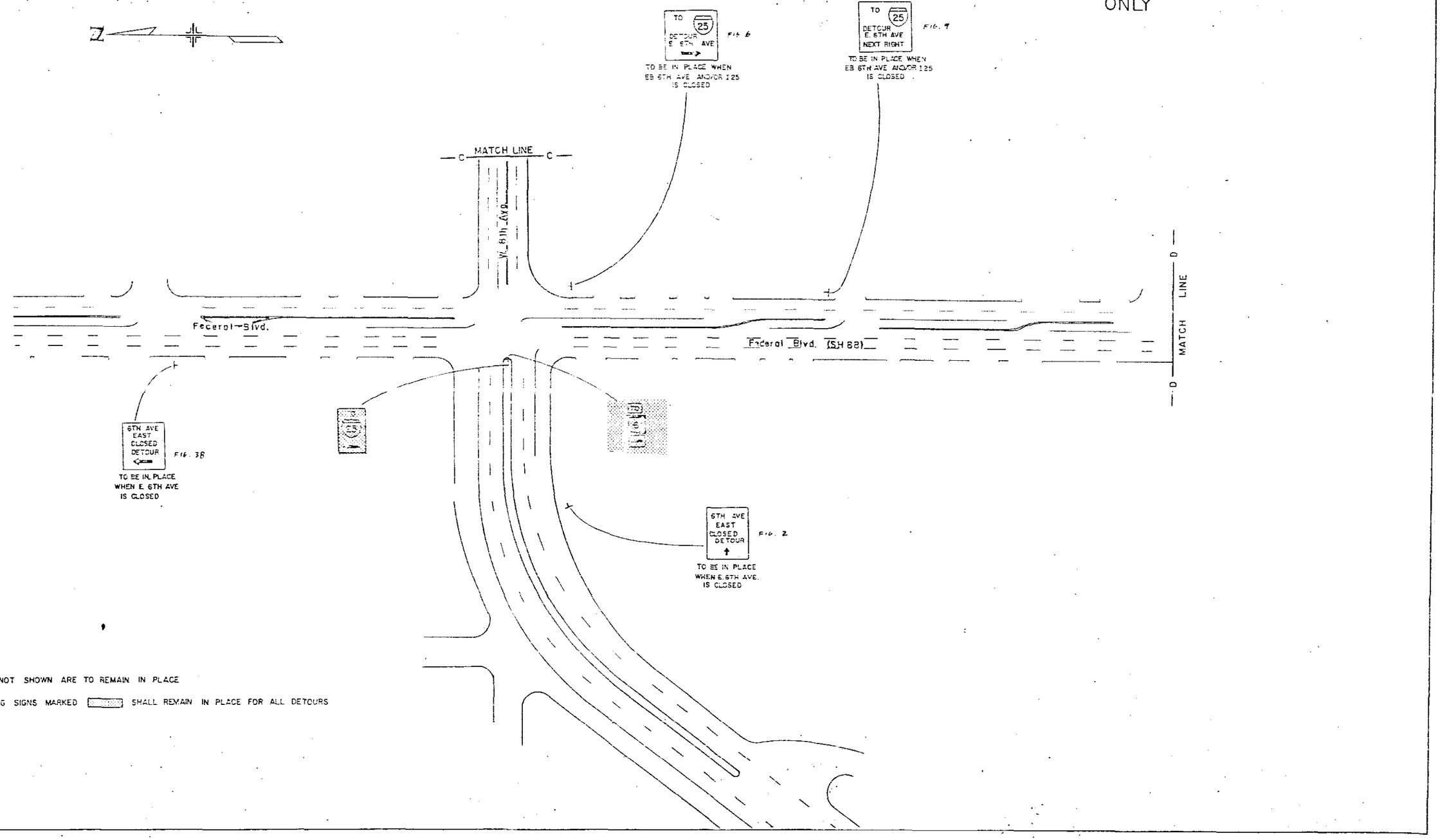
FOR INFORMATION ONLY

STATE OF COLORADO
STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
F. O. H. FORM NO. 126
REV. FEB. 1984

DETOUR PLAN

AS CONSTRUCTED						
NO REVISIONS	REVISED	VOID	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
			VIII	COLO.	IR25-2(191)	95	

FOR INFORMATION ONLY



ALL SIGNS NOT SHOWN ARE TO REMAIN IN PLACE

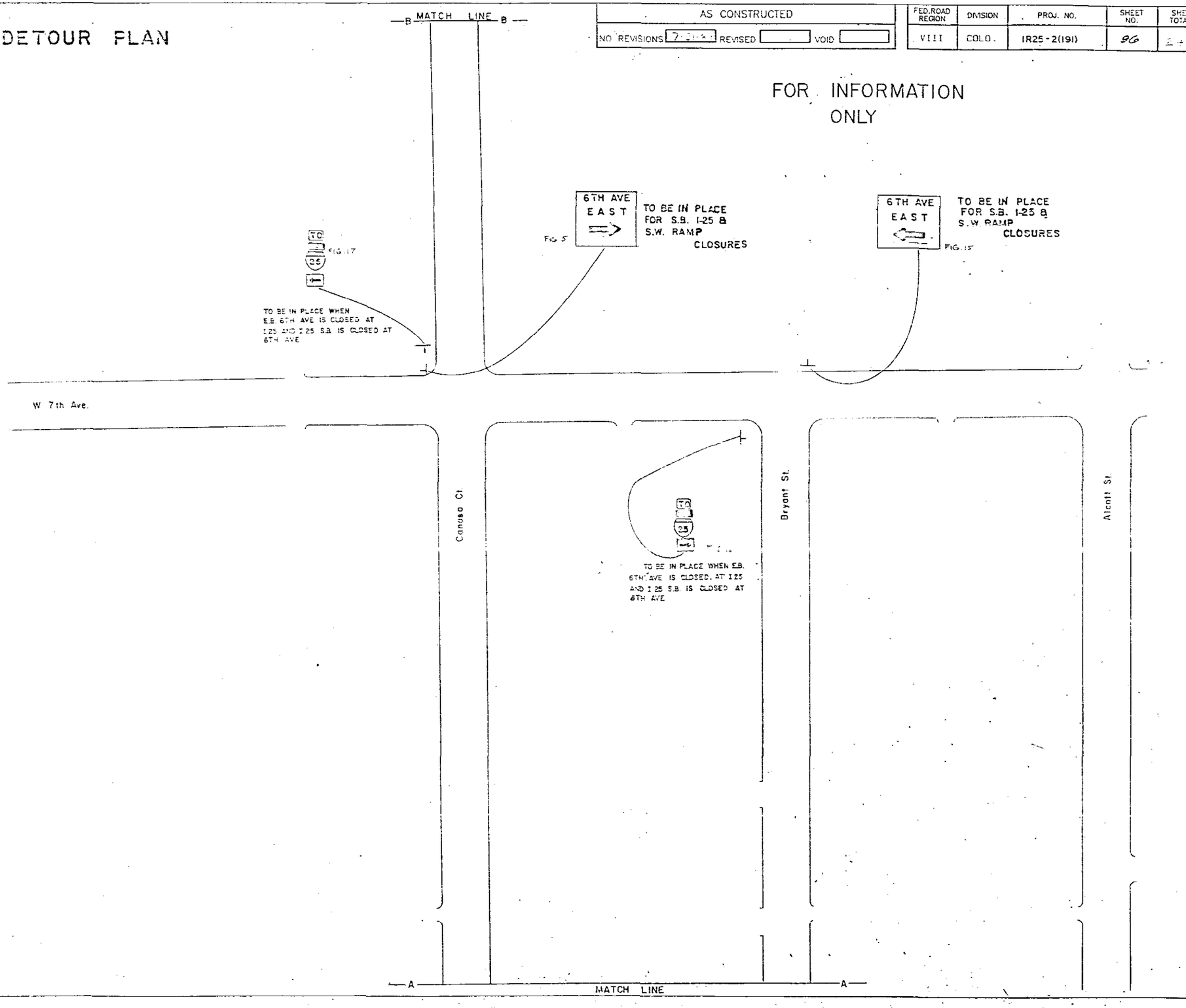
ALL EXISTING SIGNS MARKED ▭ SHALL REMAIN IN PLACE FOR ALL DETOURS

STATE OF COLORADO
STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
C. D. H. FORM NO. 1205
REV. FEB. 1984

DETOUR PLAN

AS CONSTRUCTED					
NO REVISIONS	REVISED	VOID	FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
			VIII	COLO.	IR25-2(191)	96	

FOR INFORMATION ONLY



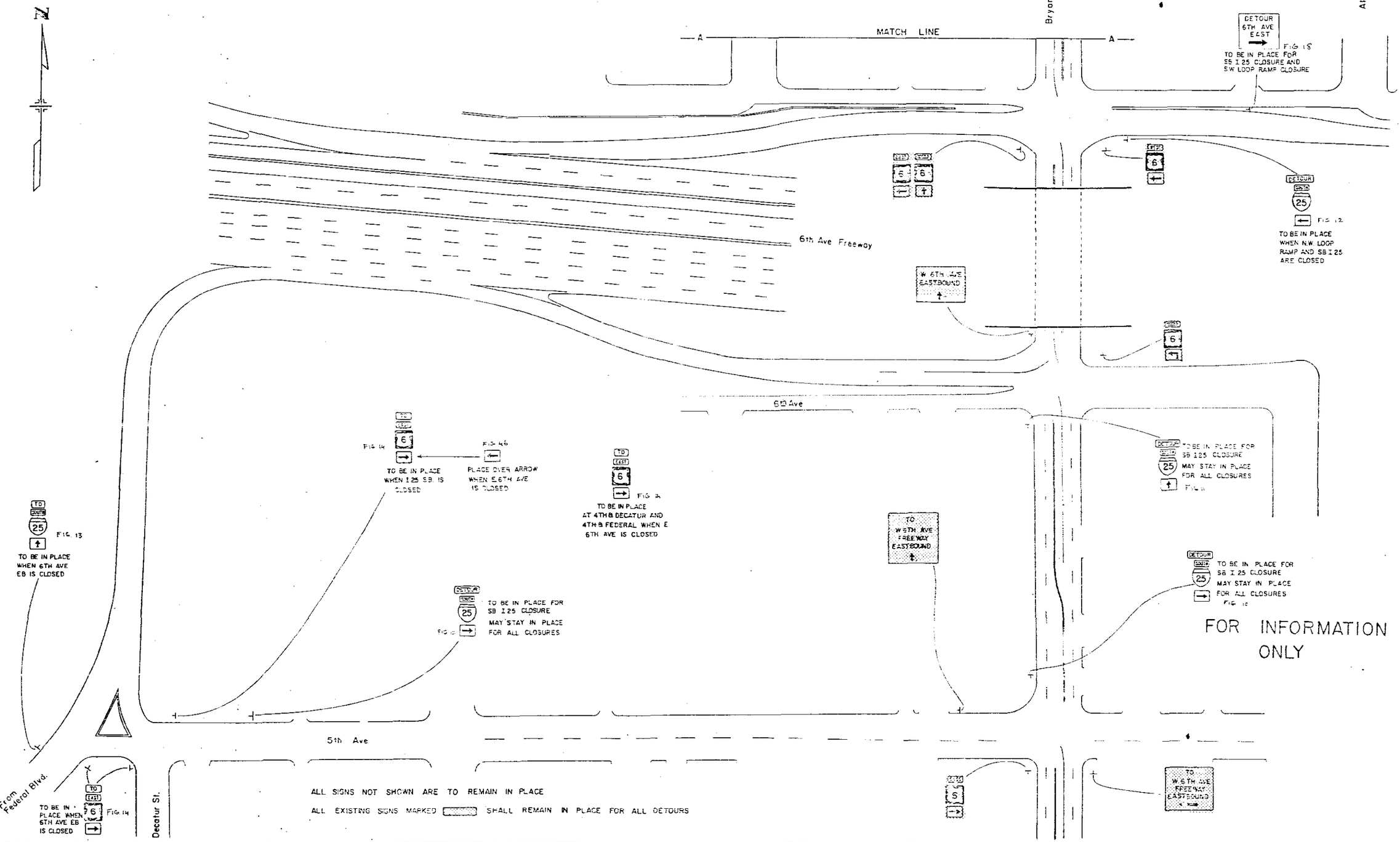
ALL SIGNS NOT SHOWN SHALL REMAIN IN PLACE
EXISTING SIGNS MARKED ▒▒▒ SHALL REMAIN IN PLACE FOR ALL DETOURS

STATE OF COLORADO
STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
F. H. FORM NO. 1251
REV. FEB. 1984

DETOUR PLAN

AS CONSTRUCTED					
NO REVISIONS [illegible]	REVISED		VOID		

FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR25-2(191)	97	[illegible]



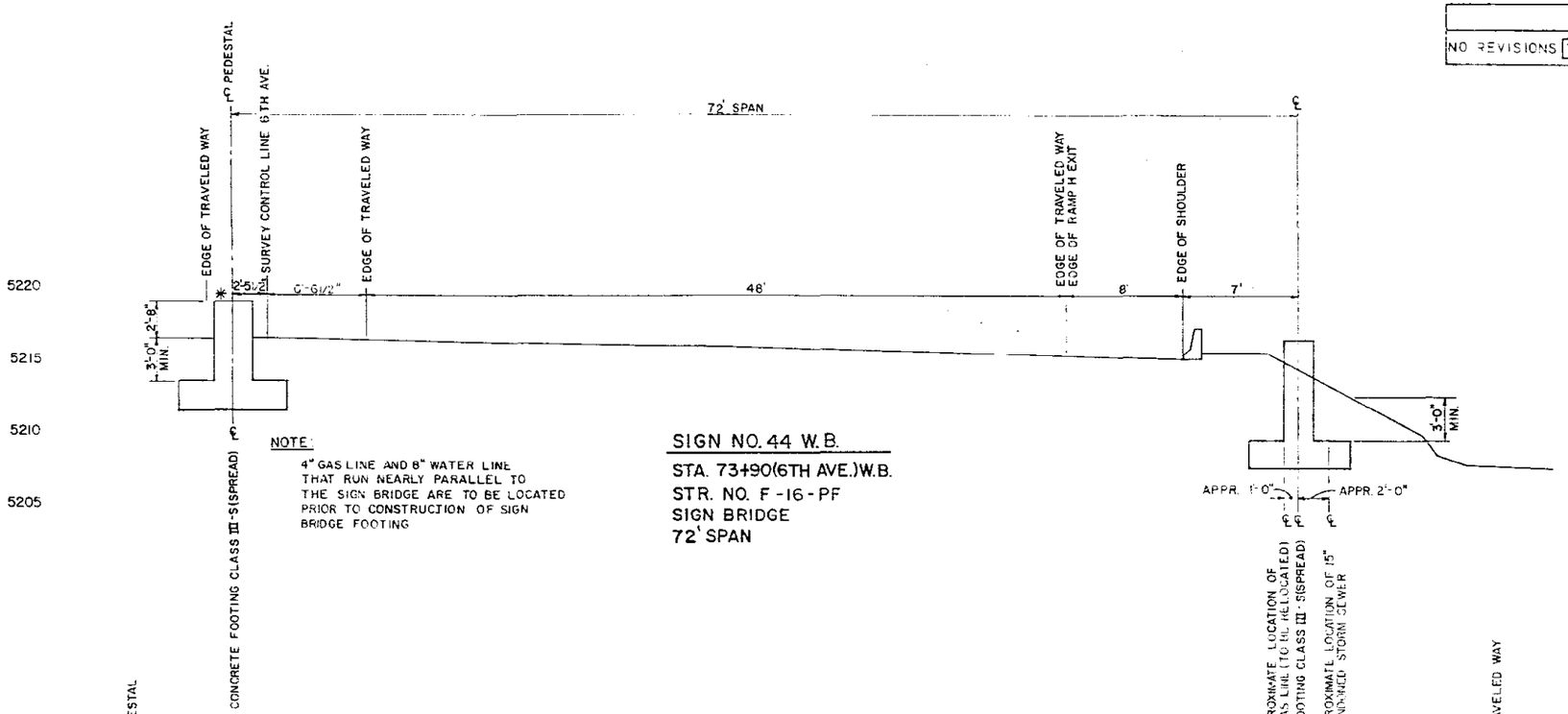
FOR INFORMATION ONLY

ALL SIGNS NOT SHOWN ARE TO REMAIN IN PLACE

ALL EXISTING SIGNS MARKED [ ] SHALL REMAIN IN PLACE FOR ALL DETOURS

AS CONSTRUCTED					
NO REVISIONS	7-21-29	REVISED		VOID	

FEDERAL ROAD REGION NO	DIVISION	PROJ NO	SHEET NO	TOTAL SHEETS
VIII	COLORADO	IR25-2(191)	98	242

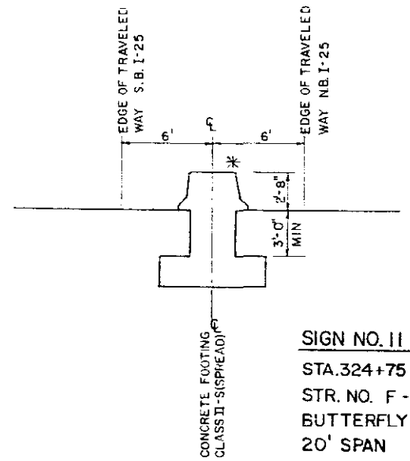


NOTE:

4" GAS LINE AND 8" WATER LINE THAT RUN NEARLY PARALLEL TO THE SIGN BRIDGE ARE TO BE LOCATED PRIOR TO CONSTRUCTION OF SIGN BRIDGE FOOTING

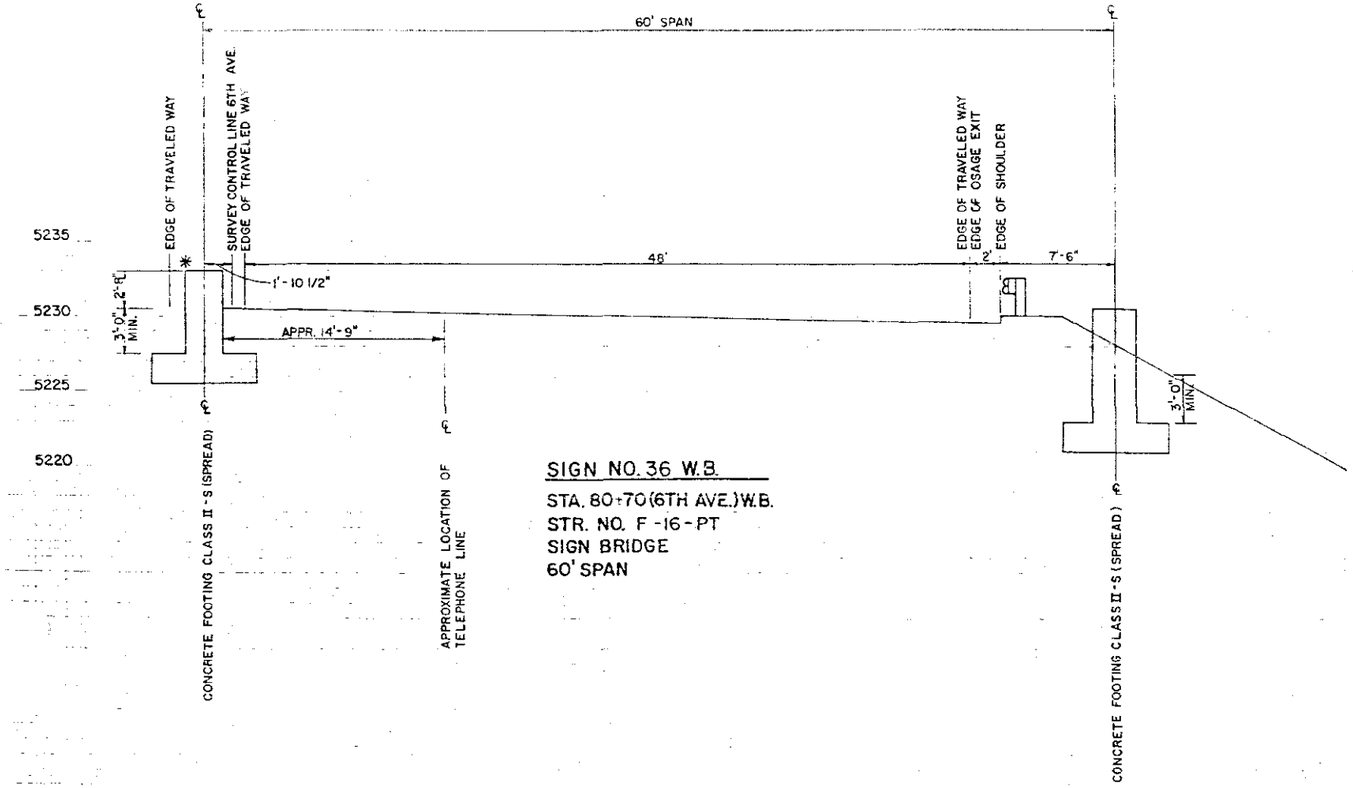
SIGN NO. 44 W.B.

STA. 73+90(6TH AVE.)W.B.
STR. NO. F-16-PF
SIGN BRIDGE
72' SPAN



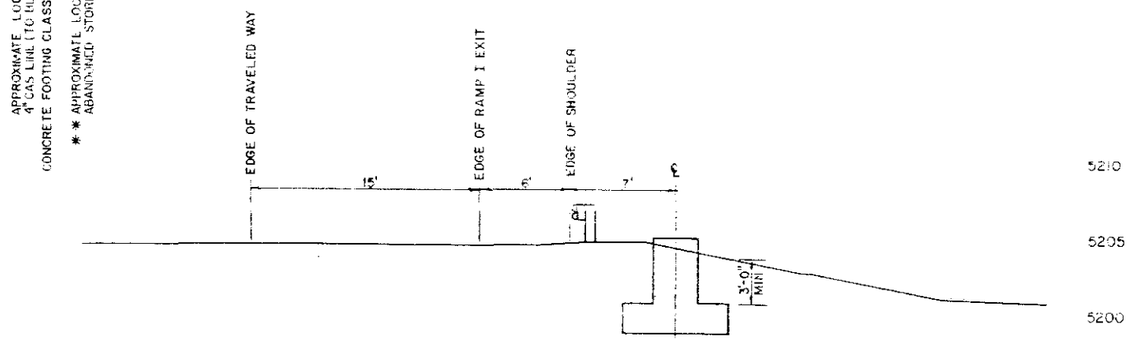
SIGN NO. 11 N.B.

STA. 324+75 L.C.L.(I-25) N.B.
STR. NO. F-16-PW
BUTTERFLY
20' SPAN



SIGN NO. 36 W.B.

STA. 80+70(6TH AVE.)W.B.
STR. NO. F-16-PT
SIGN BRIDGE
60' SPAN



SIGN NO. 23 N.B.

STA. 270+80 LCL (I-25) N.B.
STR. NO. F-16-PU
CANTILEVER
28' SPAN

NOTE:

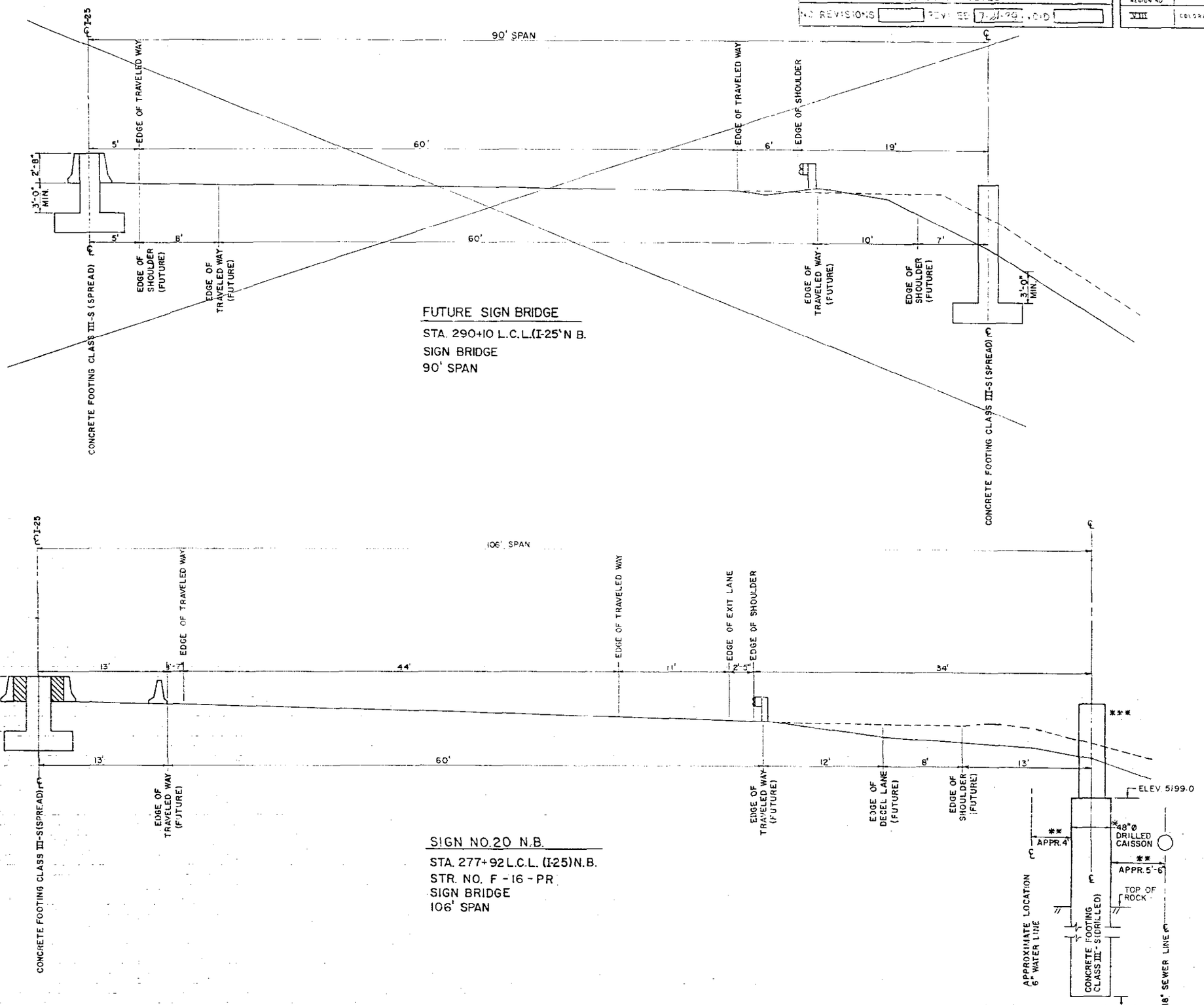
* SEE DETAIL FOR BARRIER TRANSITION AROUND SIGN BRIDGE

** ABANDONED 15" STORM SEWER SHALL BE PLUGGED ON EACH SIDE OF SIGN BRIDGE FOOTING.

HIGHWAYS
STATE OF COLORADO

AS CONSTRUCTED
NO REVISIONS [ ] REVISED 7-21-78 VOID [ ]

FEDERAL ROAD REGION NO	DIVISION	PROJ NO	SHEET NO	TOTAL SHEETS
VIII	COLORADO	IR25-2(191)	99	242



FUTURE SIGN BRIDGE
STA. 290+10 L.C.L.(I-25)N B.
SIGN BRIDGE
90' SPAN

SIGN NO.20 N.B.
STA. 277+92 L.C.L. (I-25)N.B.
STR. NO. F-16-PR
SIGN BRIDGE
106' SPAN

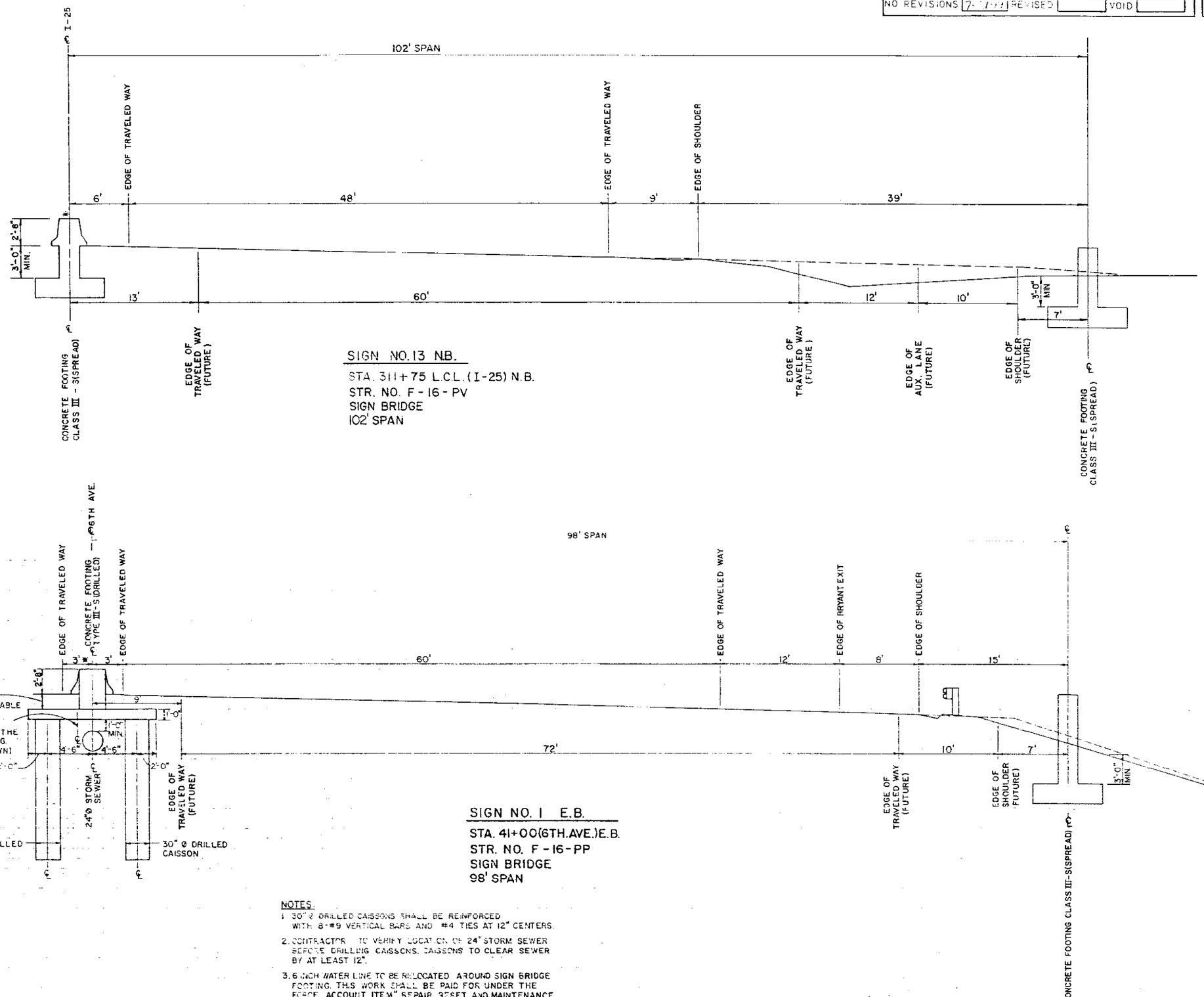
NOTES:
* DRILLED CAISSON SHALL BE REINFORCED WITH 18-#9 VERTICAL BARS & #4 TIES @ 12" CTS (FULL LENGTH) AND SHALL PENETRATE INTO THE ROCK A LENGTH OF 5 FT.
** CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BEFORE DRILLING CAISSON.
*** PEDESTAL SHALL BE INCLUDED IN THE COST OF THE 48" Ø DRILLED CAISSON. FOR PEDESTAL DETAIL SEE SHEET NO. 111

ELEVATIONS SHOWN SHALL BE VERIFIED AT TIME OF CONSTUCTION (BY FIELD FORCES)

HIGHWAYS
STATE OF COLORADO

AS CONSTRUCTED				
NO REVISIONS [7-7-71] REVISED [ ] VOID [ ]				

FEDERAL AID PROJECT NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
	IR 25-2 (191)	100	344



NOTES:

1. 30" Ø DRILLED CAISSONS SHALL BE REINFORCED WITH 8-#9 VERTICAL BARS AND #4 TIES AT 12" CENTERS.
2. CONTRACTOR TO VERIFY LOCATION OF 24" STORM SEWER BEFORE DRILLING CAISSONS. CAISSONS TO CLEAR SEWER BY AT LEAST 12".
3. 6 INCH WATER LINE TO BE RELOCATED AROUND SIGN BRIDGE FOOTING. THIS WORK SHALL BE PAID FOR UNDER THE FORCE ACCOUNT ITEM "REPAIR, RESET, AND MAINTENANCE OF EXISTING IRRIGATION SYSTEMS."

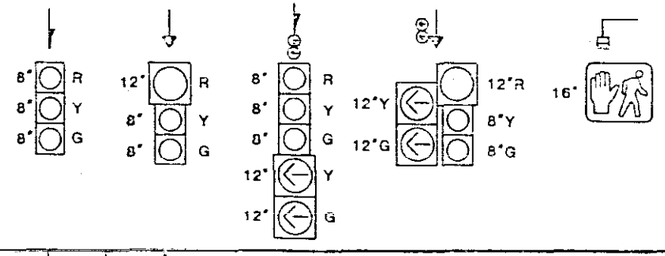
AS CONSTRUCTED					
NO REVISIONS 7-1-[illegible] REVISED [ ] VOID [ ]	FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
	VIII	COLO.	IR 25-2(191)	101	241

GENERAL NOTES

1. ALL OVERHEAD RED SIGNAL FACES SHALL BE 12 INCHES.
2. ALL ARROW SIGNAL FACES SHALL BE 12 INCHES.
3. ALL OTHER VEHICLE SIGNAL FACES SHALL BE 8 INCHES UNLESS OTHERWISE SPECIFIED.
4. ALL SIGNALS SHALL BE INCANDESCENT UNLESS OTHERWISE SPECIFIED.
5. ALL SINGLE OR BACK-TO-BACK VEHICLE SIGNAL HEADS SHALL HAVE A BACKPLATE.
6. BACKPLATE BORDERS SHALL BE 5"±1/4" FOR 12-INCH SIGNALS AND 8"±1/4" FOR 8-INCH SIGNALS.
7. ALL POLES OR PEDESTALS SHALL BE INSTALLED A MINIMUM OF 3 FEET FROM THE CENTER OF THE POLE OR PEDESTAL TO THE FACE OF THE CURB OR EDGE OF PAVEMENT. PRECISE LOCATION OF THE POLE OR PEDESTAL SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
8. VEHICLE INDICATIONS SHALL GENERALLY BE MOUNTED ON THE FRONT SIDE OF THE POLE. AT LOCATIONS WHERE FRONT MOUNTING MAKES THEM SUSCEPTIBLE TO BEING STRUCK BY TURNING VEHICLES THEY SHALL BE MOUNTED ON THE BACK OR SIDE OF THE POLE AWAY FROM THE VEHICLE PATH.
9. THE BOTTOM OF ALL MAST ARM AND SPAN WIRE MOUNTED SIGNAL HEADS SHALL BE ON THE SAME HORIZONTAL PLANE AND HAVE A MINIMMUM CLEARANCE OF 15'-6" AND A MAXIMUM CLEARANCE OF 17'-6" ABOVE THE PAVEMENT SURFACE, UNLESS OTHERWISE SPECIFIED.
10. ANCHOR BOLT SPACING VARIES SLIGHTLY BETWEEN MANUFACTURERS. ANY CHANGE IN DIMENSIONS FROM THOSE SPECIFIED ON THE PLANS SHALL BE CHECKED BEFORE INSTALLING FOUNDATIONS.
11. ALL EXPOSED CONCRETE SURFACES SHALL BE FORMED, TROWLED, AND FINISHED TO PRESENT A NEAT APPEARANCE.
12. ALL ELECTRICAL SYSTEMS SHALL BE PROPERLY GROUNDED IN ACCORDANCE WITH THE SPECIFICATIONS. A GROUND ROD SHALL BE INSTALLED FOR EACH POLE, PEDESTAL, AND CONTROLLER CABINET FOUNDATION.
13. CONTRACTOR SHALL NOT REMOVE ANY REGULATORY TRAFFIC SIGNS UNLESS SPECIFIED ON PLANS. CITY AND COUNTY OF DENVER TRANSPORTATION DIVISION TO BE NOTIFIED 48 HOURS PRIOR TO ANY SIGNING CHANGES.
14. ALL SIGNAL EQUIPMENT REMOVED REMAINS THE PROPERTY OF DENVER TRANSPORTATION DIVISION.
15. PEDESTRIAN SIGNAL FACE LEGEND SHALL BE SYMBOLIC (HAND-MAN).

LEGEND

- CONTROLLER CABINET-EXISTING
- CONTROLLER CABINET-NEW (DARKENED PORTION INDICATES DOOR SIDE OF CABINET)
- PULL BOX, EXISTING
- NEW PULL BOX
- LOOP DETECTOR
- W ○ WOOD POLE, EXISTING
- S ○ STEEL POLE, EXISTING
- P ○ PEDESTAL SIGNAL POLE, EXISTING
- A ○ ALUMINUM POLE, EXISTING
- ● NEW POLE OR PEDESTAL
- DOWN GUY
- UNDERGROUND CONDUIT, EXISTING
- UNDERGROUND CONDUIT, NEW
- STREET LIGHT (INSTALLED BY PUBLIC SERVICE COMPANY)
- PBG-L OR R — PEDESTRIAN PUSH BUTTON, LEFT OR RIGHT ARROW. "WAIT FOR GREEN SIGNAL"
- PBW-L OR R — PEDESTRIAN PUSH BUTTON, LEFT OR RIGHT ARROW. "WAIT FOR WALK SIGNAL"
- A,S — TYPE I STANDARD (MAST ARM LENGTH AS SPECIFIED, SHOWING SIGNAL WITH BACKPLATE)
- TYPE II STANDARD (SPAN-WIRE MOUNTED, SHOWING SIGNAL WITH BACKPLATE)
- P — TYPE III STANDARD (PEDESTAL MOUNTED, SHOWING SIGNAL WITHOUT BACKPLATE)
- A,S CR W — TYPE IV STANDARD (SIDE-BRACKET MOUNTED, SHOWING SIGNAL WITHOUT BACKPLATE)
- CURB DRAIN
- MANHOLE
- W — WATER VALVE
- FIRE HYDRANT
- T — TELEPHONE BOOTH
- M — MAIL BOX



KEY NOTES

REMOVALS

- 1A REMOVE SIGNAL HEAD
- 1B REMOVE SIGNAL POLE
- 1C REMOVE SIGNAL POLE AND ALL ATTACHED EQUIPMENT
- 1D REMOVE SIGNAL CABINET, CONTROLLER AND ASSOCIATED EQUIPMENT
- 1E REMOVE MAST ARM
- 1F REMOVE SPAN WIRE, CABLE AND ALL ATTACHED SIGNAL HEADS AND EQUIPMENT
- 1G REMOVE PUSH BUTTON
- 1H PUBLIC SERVICE COMPANY TO REMOVE EXISTING POLE

RESETS

- 2A RESET SIGNAL HEAD
- 2B RESET SIGNAL POLE
- 2C RESET SIGNAL CONTROLLER, CABINET AND ASSOCIATED EQUIPMENT
- 2D RESET PUSH BUTTON
- 2E RESET MAST ARM
- 2F RESET MAST ARM AND ALL ATTACHED SIGNAL EQUIPMENT
- 2G RESET SPAN WIRE
- 2H RESET SPAN WIRE AND ALL ATTACHED SIGNAL EQUIPMENT
- 2J PUBLIC SERVICE COMPANY TO RESET STREET LIGHT
- 2K PUBLIC SERVICE COMPANY TO RESET EXISTING POLE

INSTALLATIONS

- 3A INSTALL SIGNAL HEAD OR HEADS
- 3B INSTALL SIGNAL CABINET, CONTROLLER AND ASSOCIATED EQUIPMENT
- 3C INSTALL PUSH BUTTON
- 3D INSTALL CONDUIT
- 3E INSTALL SIGNAL POLE
- 3F INSTALL MAST ARM - LENGTH AS SHOWN
- 3G INSTALL SPAN WIRE
- 3H INSTALL PULL BOX
- 3J INSTALL LOOP DETECTOR
- 3K PUBLIC SERVICE COMPANY TO INSTALL SIGNAL POLE
- 3L PUBLIC SERVICE COMPANY TO INSTALL POWER FEED. CONTRACTOR TO EXTEND TO CONTROLLER
- 3M PUBLIC SERVICE COMPANY TO INSTALL STREET LIGHT
- 3N INTERCEPT EXISTING CONDUIT AND ABANDON UNUSED PORTION
- 3P ABANDON EXISTING CONDUIT
- 3Q NO CHANGE

DRAWN BY A. MESTAS					
CHECKED BY L.D. Lark					
APPROVED BY [signature]	NO.	DATE	REVISIONS	BY	APPD.

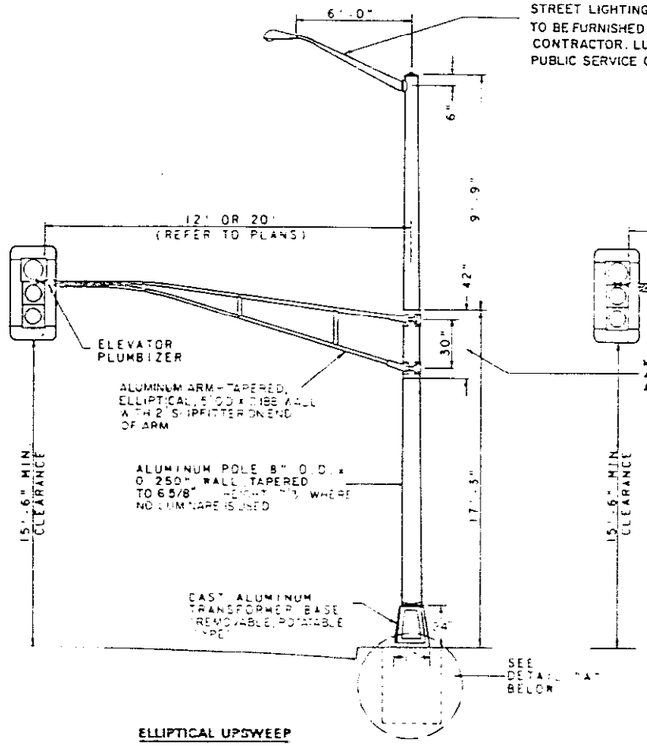
TRANSPORTATION DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF
DENVER, COLORADO

TRAFFIC SIGNAL STANDARD DRAWINGS

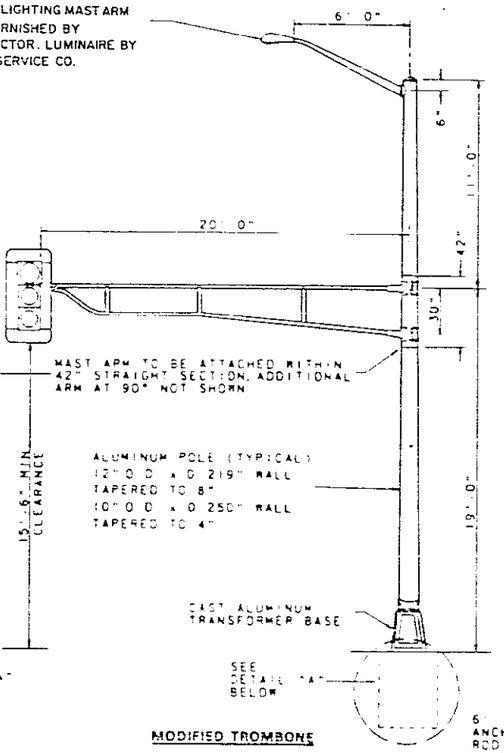
DATE AUG. 1985

DWG. NO. TS-1

AS CONSTRUCTED					
NO REVISIONS [ ] REVISED [ ] VOID [ ]	FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
	VIII	COLORADO	IR25-2 (191)	102	242



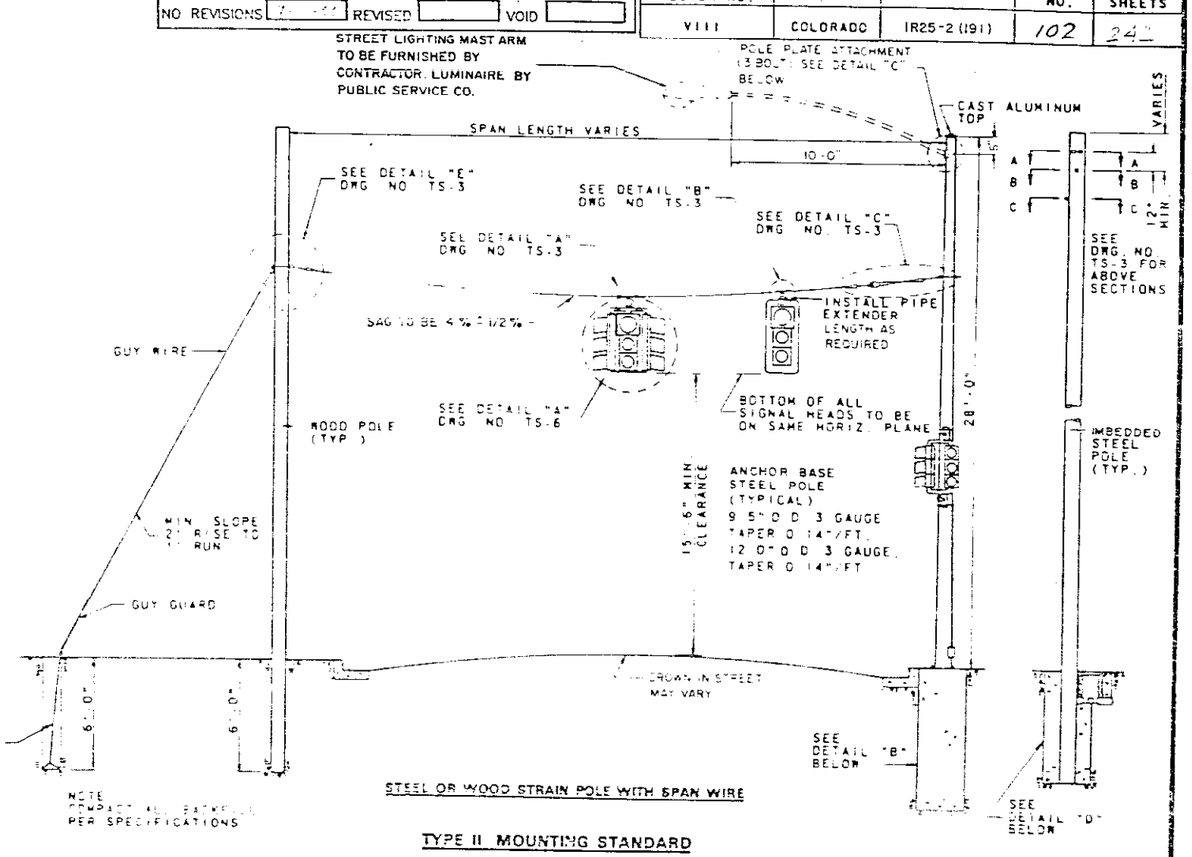
ELLIPTICAL UPSWEEP



MODIFIED TROMBONE

ALUMINUM MAST ARM AND POLE (See Sheet 5 For Steel Mast Arm & Pole)

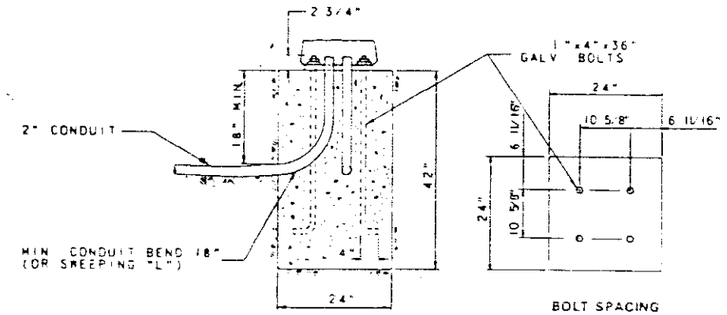
TYPE I MOUNTING STANDARD



NOTE
COMPACT ALL BACKFILL PER SPECIFICATIONS

STEEL OR WOOD STRAIN POLE WITH SPAN WIRE

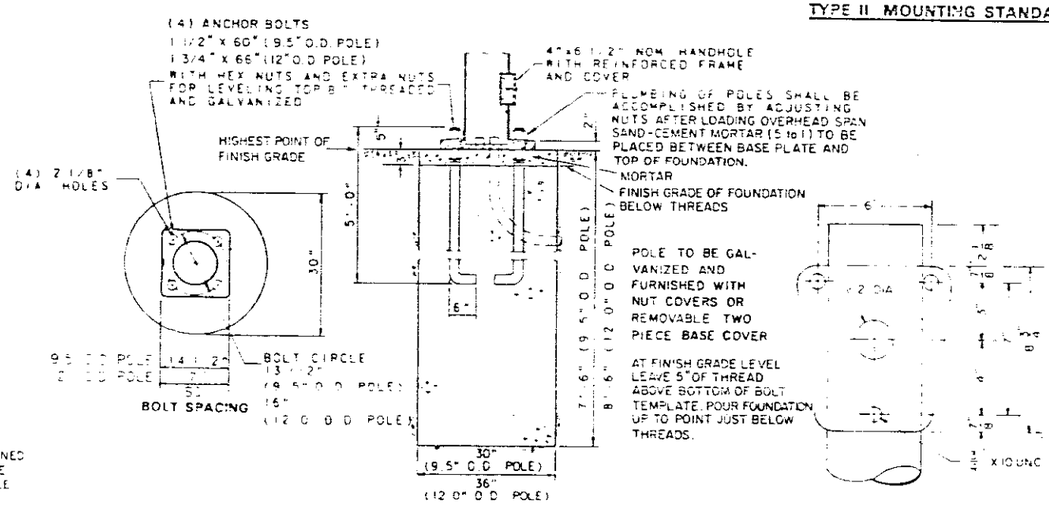
TYPE II MOUNTING STANDARD



DETAIL "A"

MAST ARM BASE

NOTE TYPE I & II BASES TO BE PROVIDED WITH 1 CONDUIT STUB OUT DIRECTION TO BE DETERMINED BY ENGINEER AND IS TO BE CONSIDERED AS PART OF POLE INSTALLATION BID ITEM

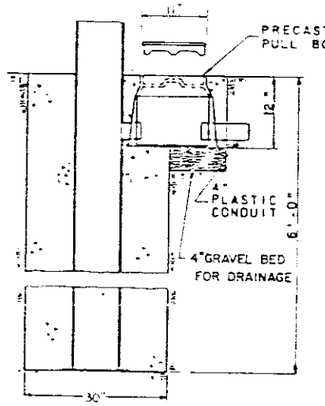


DETAIL "B"

ANCHOR BASE STEEL POLE BASE

DETAIL "C"

POLE PLATE ATTACHMENT



DETAIL "D"

IMBEDDED STEEL POLE BASE

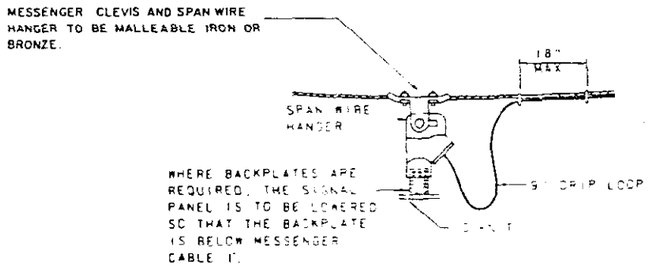
DES	NO	DATE	REVISION	BY	APPD	NO	DATE	REVISION	BY	APPD
DR	2	2-77	Detail A,B & D Revised	RH		7	3-80	Detail E, D	AC	
CHK	3	11-77	TYPE I MOUNTING STANDARD	RS		8	6-83	Type I & Type II Mounting Standard Revised	AM	
APPD	4	6-78	Detail A (Note)	RD		9	12-85	Type II Mounting Standard Detail "B" Revised	AM	
	5	9-79	Detail "B", "C" Type II Mounting Standard Revised	AM						
	6	12-79	Rev. Sag Spec	AM						
	7	6-79	Anchor Bolt Size On Detail A Revised	AV						

TRAFFIC ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF
DENVER, COLORADO

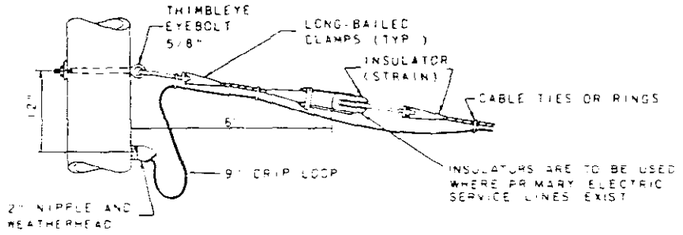
TRAFFIC SIGNAL STANDARD DRAWINGS

SHEET OF
DATE AUG. 1975
DWG. NO. TS-2

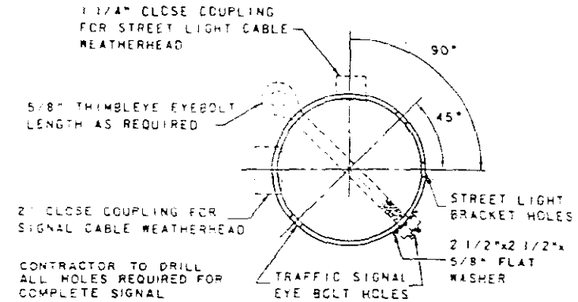
AS CONSTRUCTED	FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NO REVISIONS [ ] REVISED [ ] VOID [ ]	VIII	COLORADO	IR25-2(191)	103	241



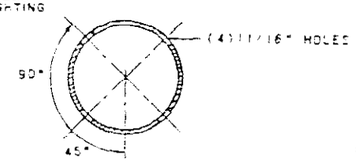
DETAIL "A"
SPAN WIRE MOUNTING



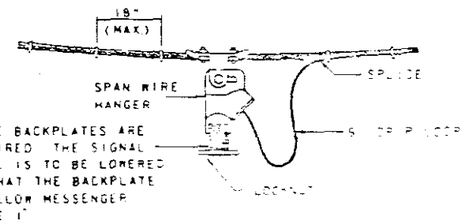
DETAIL "C"
CABLE INSTALLATION
STEEL POLE



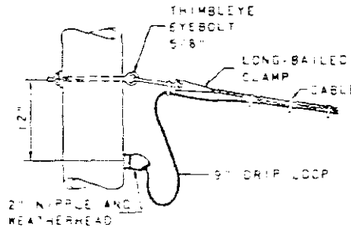
HOLE SPACING



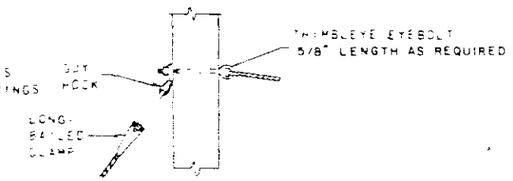
SECTION A-A



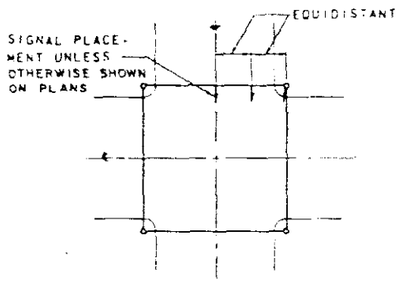
DETAIL "B"
SPAN WIRE MOUNTING SPLICE



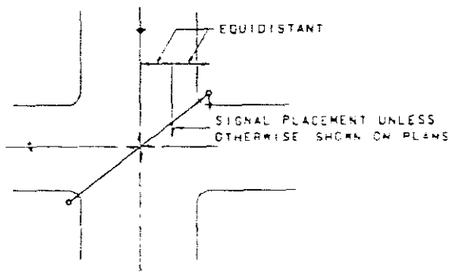
DETAIL "D"
CABLE INSTALLATION
WITHOUT INSULATOR
STEEL POLE



DETAIL "E"
CABLE INSTALLATION
WOOD POLE

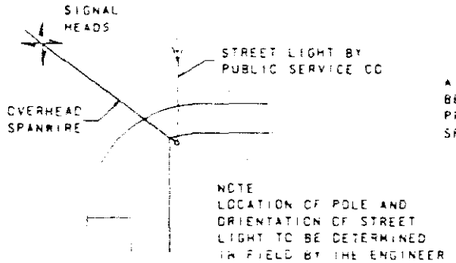


BOX SPAN

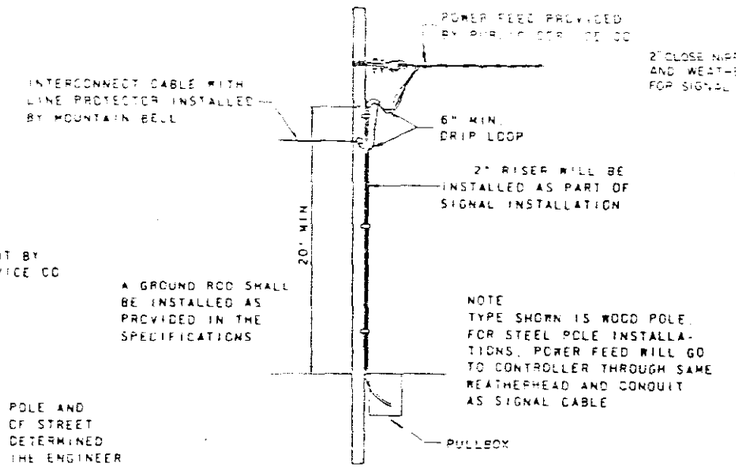


DIAGONAL SPAN

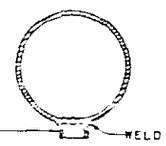
SPAN WIRE SIGNAL LOCATION (TYPICAL)



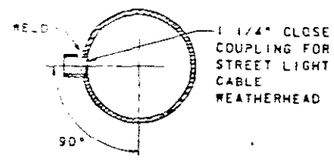
POLE LOCATION (TYPICAL)



POWER FEED INSTALLATION (TYPICAL)



SECTION B-B



SECTION C-C

STRAIN POLE (TYPICAL)

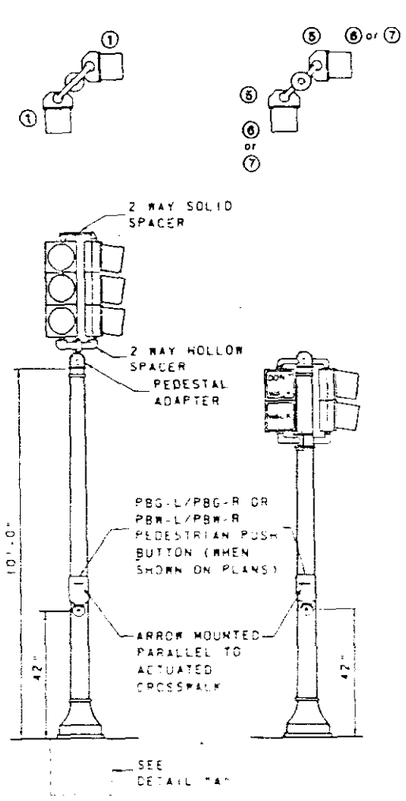
DES	1	2-77	Span Wire Sag, Power Feed Installation	RH	
DR.	2	9-78	Strain Pole, Power Feed, Span Wire Sag	RR	
CHK. J.C. Lara	3	3-80	DETAIL 'A'	AC	
E.B. Brewer	NO.	DATE	REVISION	BY	APPD

TRAFFIC ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF
DENVER, COLORADO

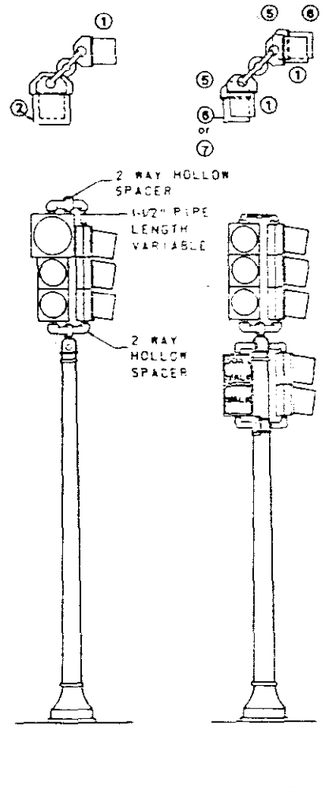
TRAFFIC SIGNAL STANDARD DRAWINGS

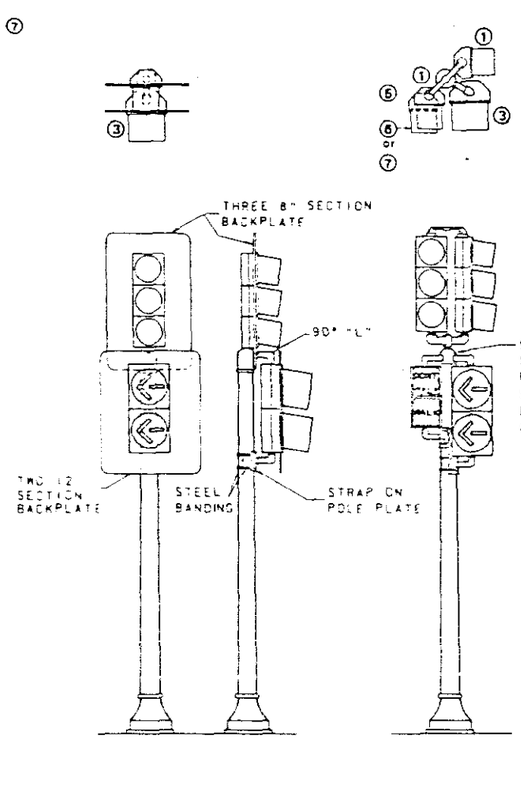
SHEET OF
DATE AUG. 1979
TS-3

FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR25-2(191)	104	

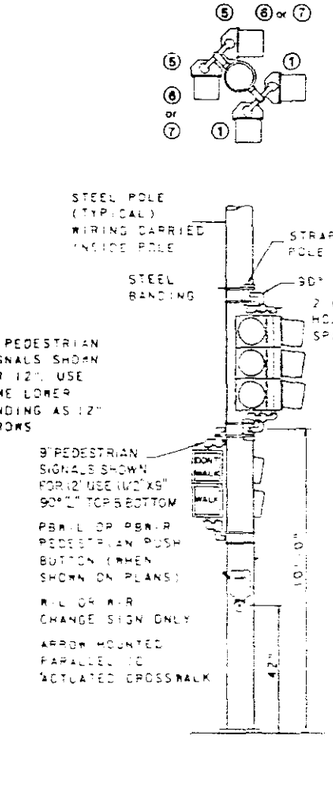


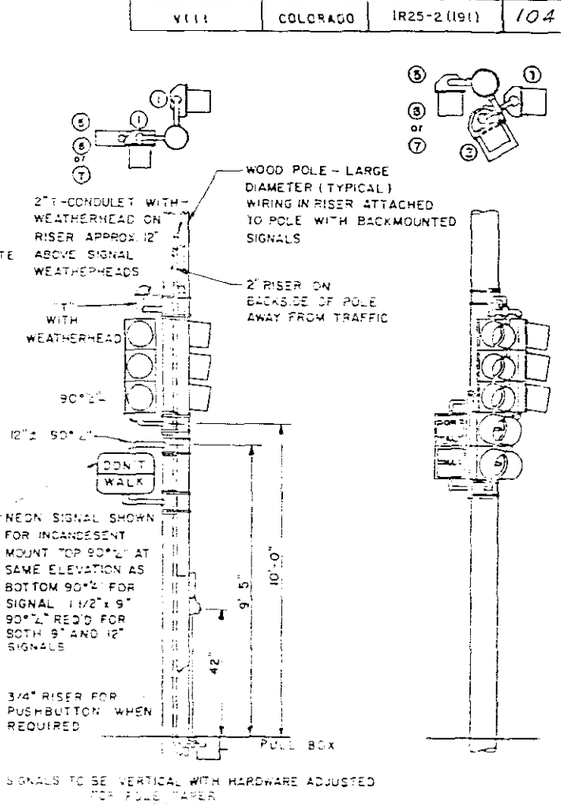
PEDESTALS





TYPE III MOUNTING STANDARD

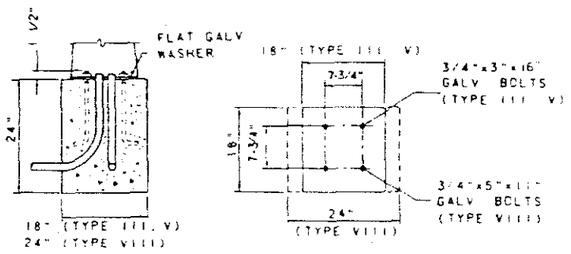




ALL SIGNALS TO BE VERTICAL WITH HARDWARE ADJUSTED FOR POLE TAPER

POLES

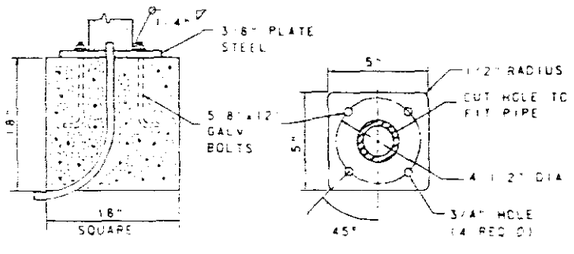
TYPE IV MOUNTING STANDARD



DETAIL "A"

PEDESTAL BASE

BOLT SPACING



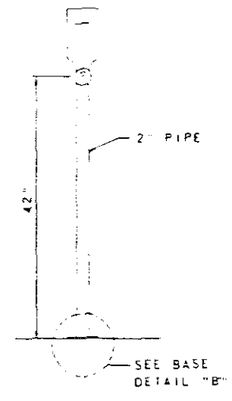
BASE DETAIL

BOLT SPACING

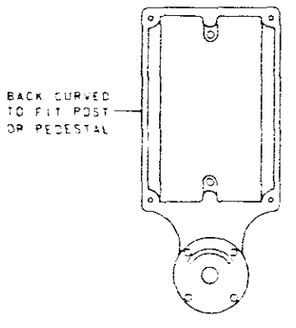
DETAIL "B"

PUSH BUTTON POLE MOUNT BASE

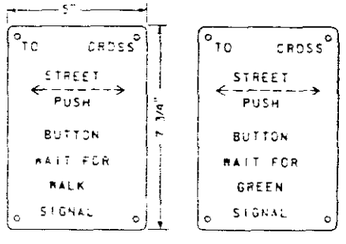
TYPE III, V OR VIII MOUNTING STANDARDS



SPECIAL PUSH BUTTON POLE MOUNT



PUSH BUTTON P3



ALTERNATIVE PUSH BUTTON SIGNS

(RIGHT OR LEFT ARROW)

WR or WL GR or GL

NO REVISIONS

AS CONSTRUCTED

REVISED

NO	DATE	REVISION	BY	APPD
1	2-77	Type III & Type IV Standards	R H	
2	9-78	DETAIL "A"	R G	
3	6-79	Alternative Push Button Signs Dimentions	A M	

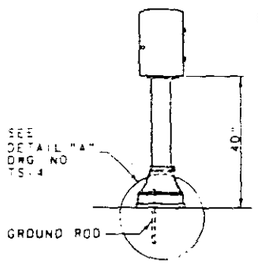
DES
DR
CHK
APPD

TRAFFIC ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF DENVER, COLORADO

TRAFFIC SIGNAL STANDARD DRAWINGS

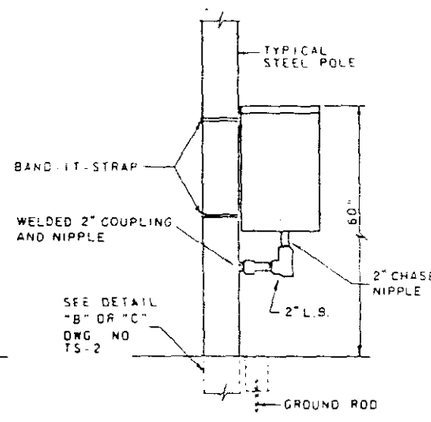
SHEET OF
DATE AUG, 1975
DWG NO. TS-4

AS CONSTRUCTED	FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NO REVISIONS 7-21-71 REVISED VOID	VIII	COLORADO	IR25-2(191)	105	147



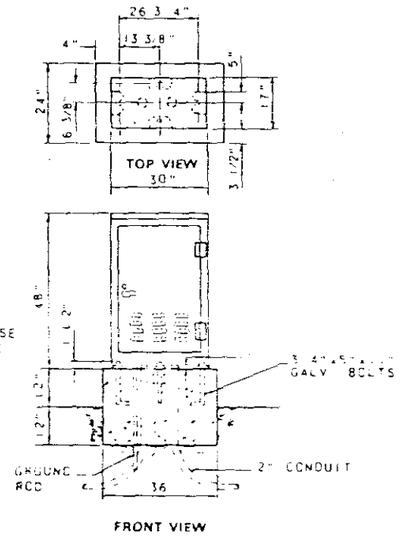
PEDESTAL MOUNT

TYPE V MOUNTING STANDARD



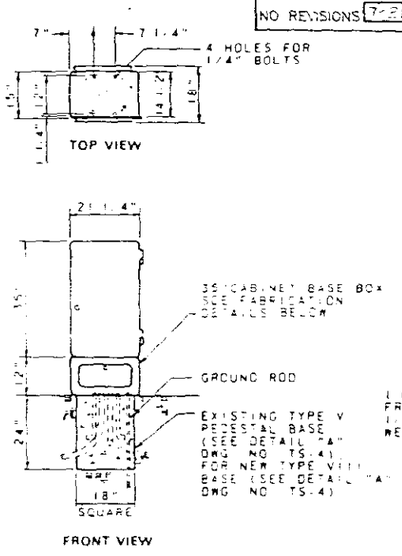
POLE MOUNT

TYPE VI MOUNTING STANDARD



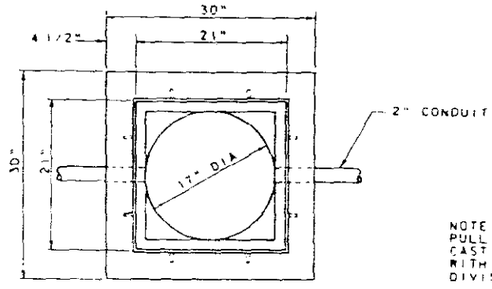
BASE MOUNT (MI)

TYPE VII MOUNTING STANDARD

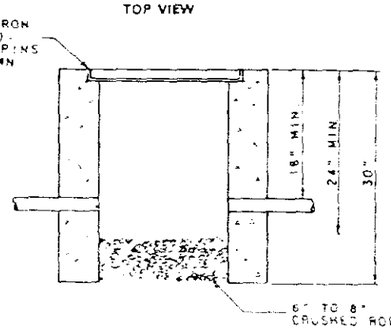


BOX MOUNT (35")

TYPE VIII MOUNTING STANDARD



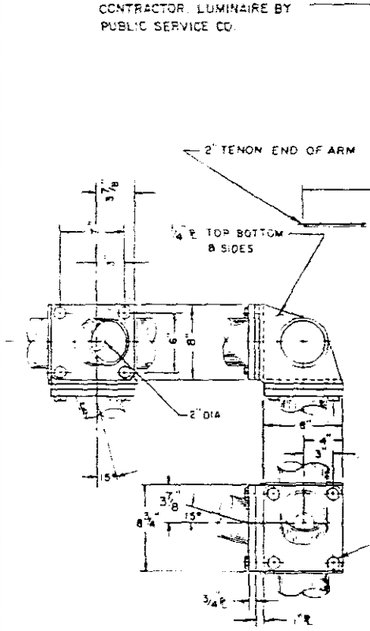
NOTE
PULL BOX COVER SHALL BE CAST IRON 1 3/8"x20 1/2"x20 1/2" WITH 2" LETTERS "DENVER TRAFFIC DIVISION"



NOTE
TOP OF PULL BOX SHALL BE FLUSH WITH SURFACE AND SIDES SHALL BE VERTICAL

DETAIL "A"

POURED IN PLACE PULL BOX

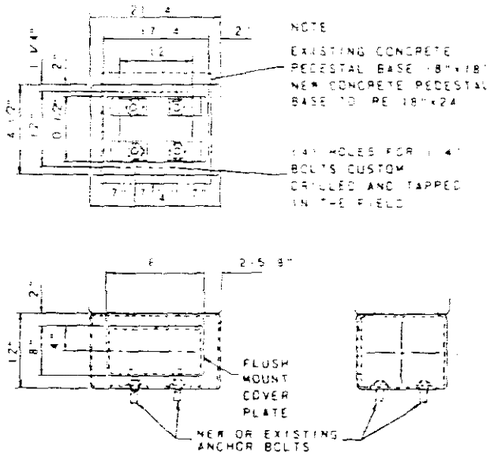


SIGNAL ARM CONNECTION DETAIL

(TYPICAL)

STEEL MAST ARM AND POLE

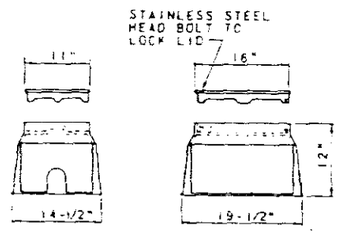
TYPE I MOUNTING STANDARD



FABRICATION DETAILS 35" CONTROLLER CABINET

ALUMINUM BOX BASE

TYPE VIII MOUNTING STANDARDS



PRECAST PULL BOX MOLDED FROM ABS (ACRYLONITRILE-BUTADIENE STYRENE) THERMOPLASTIC STRUCTURAL MATERIAL

DETAIL "B"

PRECAST PULL BOX

NO.	DATE	REVISION	BY	APPD
1	2-77	Added Type I Mounting Standard	R.H.	
2	9-78	Type I Mounting Standard (PSCO)	R.R.	
3	3-80	Type I Mounting Standard.	A.C.	
4	6-83	Type I Mounting Standard Revised.	AM	

DES.
DR.
CHK.

TRAFFIC ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF DENVER, COLORADO

TRAFFIC SIGNAL STANDARD DRAWINGS

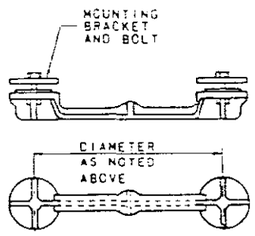
SHEET OF
DATE AUG. 1975
DWG. NO. TS-5

NO REVISION 7-2-81

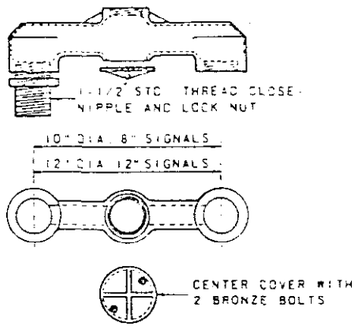
FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR25-2(191)	100	24

NOTE

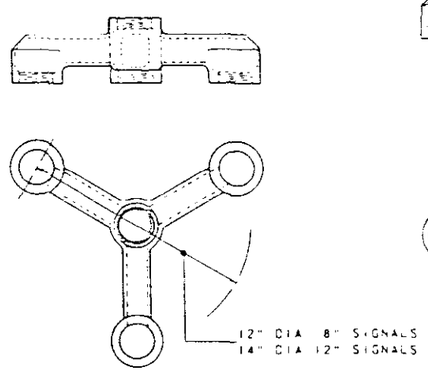
2 WAY 10" DIA. 8" SIGNALS
3 WAY 12" DIA. 8" SIGNALS
3 WAY 14" DIA 12" SIGNALS
4 WAY 12" DIA. 8" SIGNALS
4 WAY 14" DIA. 12" SIGNALS



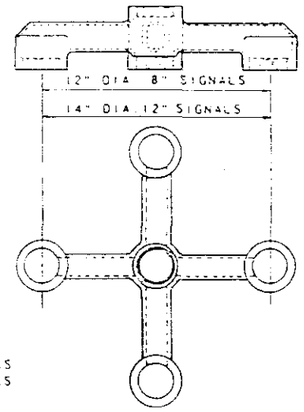
SOLID SPACER (2,3,& 4 WAY)



2 WAY "L" HOLLOW SPACER



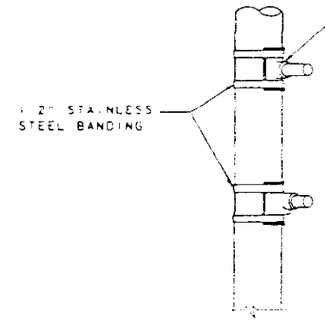
3 WAY "L" HOLLOW SPACER



4 WAY "L" HOLLOW SPACER

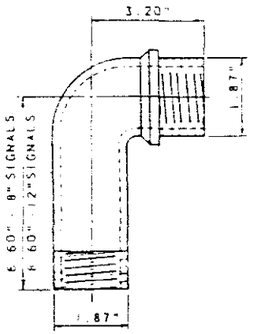
NOTES

1. "L" HOLLOW SPACERS USED AS TOP OF ASSEMBLY AND SOLID SPACERS AS BOTTOM ON OVERHEAD (TYPE II STANDARD) INSTALLATIONS. REVERSE MOUNTING IS REQUIRED ON TYPE III STANDARD INSTALLATIONS. TYPE IV STANDARD REQUIRES "L" HOLLOW SPACERS TOP AND BOTTOM.
2. NUMBER OF SIGNALS, SHOWN AT EACH LOCATION BY SYMBOL AND CODE, SHALL DETERMINE WHICH TYPES OF SPACERS WILL BE USED. WHERE MORE THAN ONE SIGNAL PANEL IS SHOWN, INDICATIONS SHALL NOT BE MOUNTED SEPARATELY EXCEPT BY APPROVAL OF THE ENGINEER.
3. ORNAMENTAL PLUG (1-1/2" STD. THREAD) REQUIRED ON ALL UNUSED OPENINGS.
4. NO ALUMINUM NIPPLES OR LOCKNUTS SHALL BE USED.
5. ALL CENTER HUBS SHALL BE MALLEABLE IRON OR BRONZE.

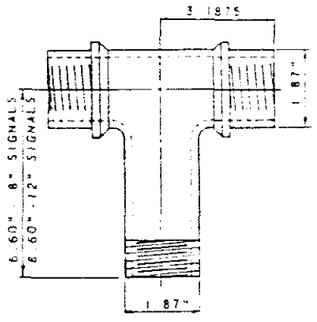


STRAP-ON POLE MOUNT DETAIL

TYPE I, II AND III MOUNTING STANDARDS

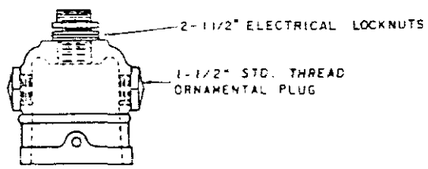


90° "L" CONNECTOR



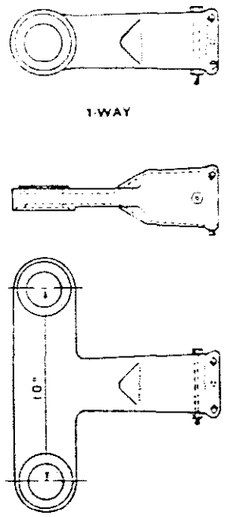
"T" CONNECTOR

TYPE III AND IV MOUNTING STANDARDS



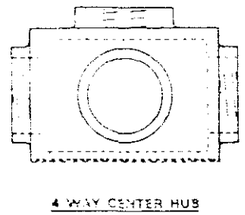
PEDESTAL ADAPTER

TYPE III MOUNTING STANDARD



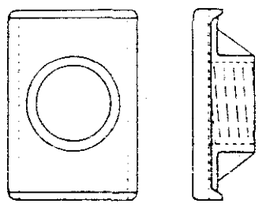
MAST ARM MOUNTING
ELEVATOR PLUMBIZER

TYPE I MOUNTING STANDARD



4 WAY CENTER HUB

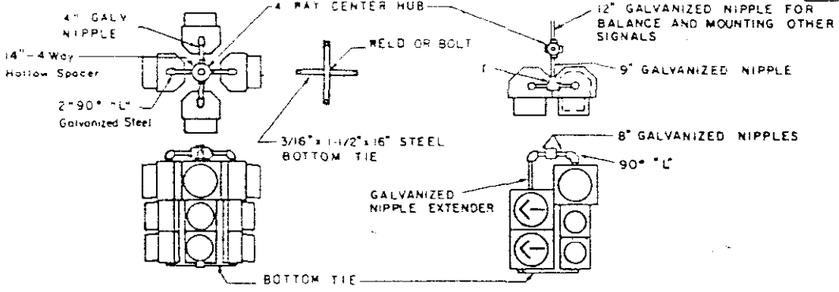
TYPE II MOUNTING STANDARD



POLE PLATE

TYPE IV MOUNTING STANDARD

TYPE IV MOUNTING STANDARD



DETAIL "A"
4-WAY SPAN WIRE MOUNTING

DETAIL "B"
COMBINATION SIGNAL SPAN WIRE MOUNTING

TYPE II MOUNTING STANDARD

NO REVISIONS ☐ REVISED ☐ VOID ☐ AS CONSTRUCTED

HIIOA

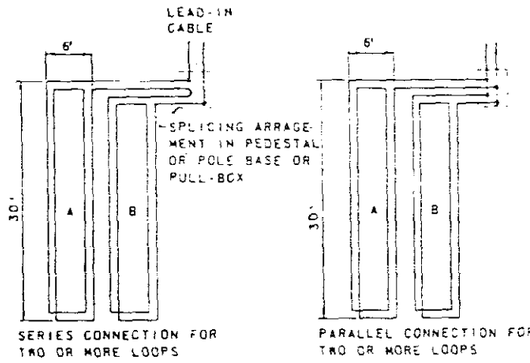
	NO.	DATE	REVISION	BY	APPD
DES.	1	2-77	Type II Type IV Mounting Standards Add	R.H.	
DR.	2	9-78	Note 4 Added Add	R.R.	
CHK. J. D. Lord	3	6-79	Type II Mounting Standard	A.M.	
	4	3-80	Note 5 Added	A.C.	

TRAFFIC ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF
DENVER, COLORADO

TRAFFIC SIGNAL STANDARD DRAWINGS

SHEET OF
DATE AUG. 1975
DWG. NO. TS-6

AS CONSTRUCTED	FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NO REVISIONS 7-21-79 REVISED ____ VOID ____	VIII	COLORADO	IR25-2(191)	107	4

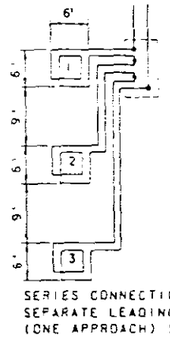


SERIES CONNECTION FOR TWO OR MORE LOOPS

SKETCH 1

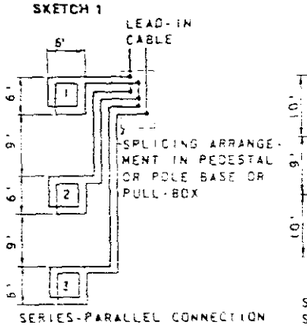
PARALLEL CONNECTION FOR TWO OR MORE LOOPS

SKETCH 2



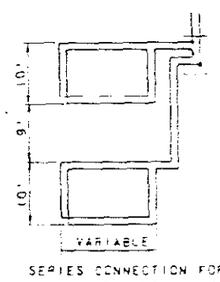
SERIES CONNECTION FOR SEPARATE LEADING GREEN (ONE APPROACH) SEE NOTE 3

SKETCH 3



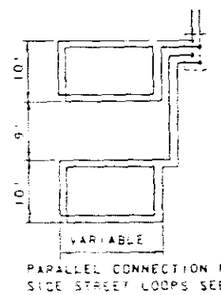
SERIES-PARALLEL CONNECTION FOR BACK TO BACK LEADING GREEN OPERATION (TWO APPROACHES) CONNECT APPROACHES IN SERIES TO AMPLIFIER SEE NOTES 3 AND 5

SKETCH 4



SERIES CONNECTION FOR SIDE STREET LOOPS SEE NOTE 4

SKETCH 5



PARALLEL CONNECTION FOR SIDE STREET LOOPS SEE NOTE 4

SKETCH 6

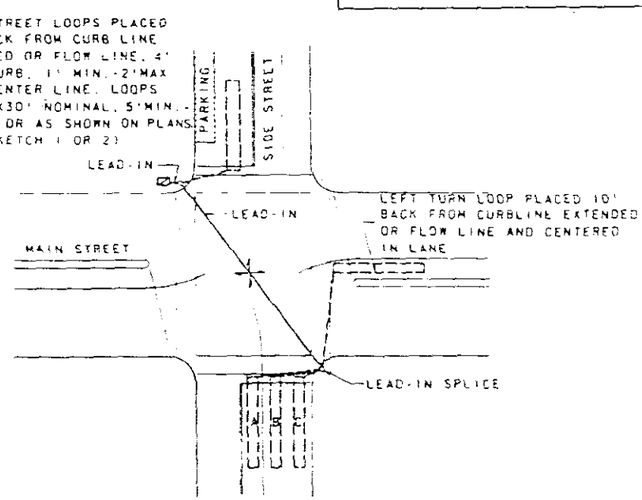
LOOP CONNECTIONS TO SINGLE AMPLIFIER

NUMBER OF LOOPS	NUMBER OF TURNS	CONNECTION OF LOOPS (1ST SPLICE PT)	CONNECTION TO AMPLIFIER	PROBABLE NUMBER OF LEGS
1	2		SAME	1
2	3 3	PARALLEL	SAME	1
3	3 2 2	SERIES	PARALLEL	1 2
4	2 2 2 2	SERIES SERIES	PARALLEL	1 2
5	2 2 2 2 2	SERIES SERIES	PARALLEL	2
6	2 2 2 2 2 2	SERIES SERIES	PARALLEL	2

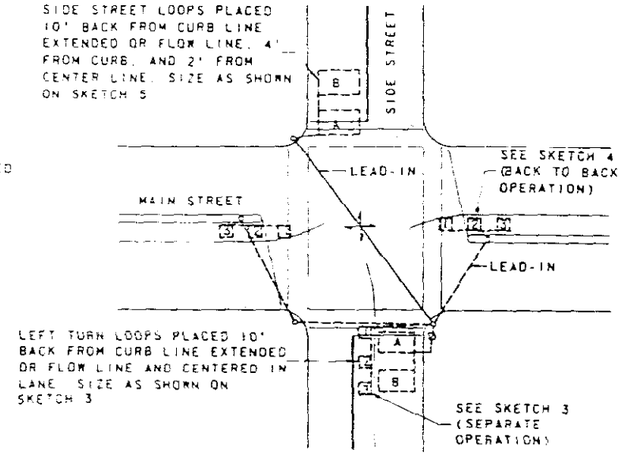
LOOPS ARE 6'X30' NOMINAL (MIN.5'-MAX.12')
SEE INTERSECTION DRAWING FOR LAYOUT OF LOOPS.

NOTES.

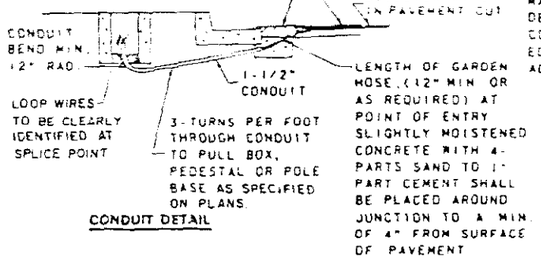
1. LOOP WIRES SHALL BE BROUGHT OUT TO NEAREST SIGNAL STANDARD OR PULL BOX AND EXISTING UNDERGROUND CONDUIT OR OVERHEAD MESSENGER WIRE USED FOR LEAD-IN CABLE TO CONTROL CABINET.
2. LEAD-IN CABLE LENGTH SHOULD BE THE SHORTEST POSSIBLE DISTANCE TO THE CONTROL CABINET.
3. LOOP WIRES SHALL BE SPLICED TO LEAD-IN CABLE IN ACCORDANCE WITH THE SPECS.
4. ALL LEFT TURN LOOPS SHALL HAVE 2 TURNS OF WIRE IN EACH LOOP.
5. SIDE STREET LOOPS SHALL HAVE THE NUMBER OF TURNS OF WIRE AND CONNECTIONS AS SPECIFIED ON PLANS. SEE SKETCHES 1, 2, 3 & 4
6. TWO OPPOSING LEFT TURN LOOP COMBINATIONS (BACK TO BACK) MAY BE CONNECTED IN SERIES-PARALLEL TO ONE AMPLIFIER AS SPECIFIED ON PLANS SEE SKETCH 4.
7. ALL LOOP WIRES SHALL BE CLEARLY IDENTIFIED BY LETTER AT CONNECTION OR SPLICE POINT.
8. ALL LOOP INTERCEPT LOCATIONS SHALL BE MARKED WITH AN ARROW CUT INTO THE CURB OR GUTTER.



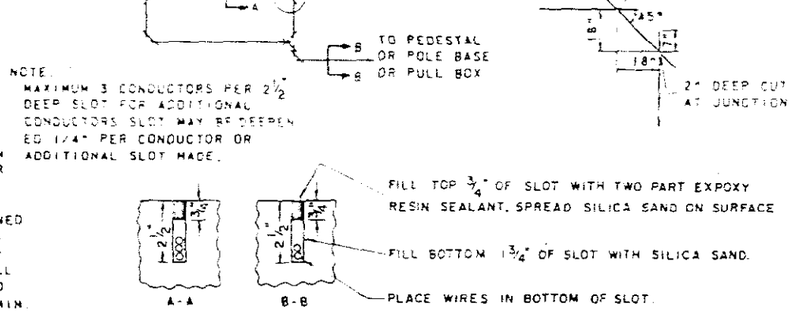
LOCATION DETAIL (TYPICAL)
NEW CONSTRUCTION



ALTERNATIVE LOCATION DETAIL (TYPICAL)
EXISTING - NOT TO BE USED FOR NEW CONSTRUCTION



CONDUIT DETAIL



LOOP SLOT DETAIL

LOOP DETECTOR INSTALLATION

NO.	DATE	REVISION	BY	APPD
1	2-77	Loop Slot Detail	R.H.	
2	9-78	Loop Slot Detail	R.R.	
3	12-78	Added Notes	A.M.	

DES. ____ DR ____ CHK. ____ APPROVED ____

TRAFFIC ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF
DENVER, COLORADO

TRAFFIC SIGNAL STANDARD DRAWINGS

SHEET OF
DATE AUG. 1975
DWG. TS-7

STATE OF COLORADO

CLASS III SIGNS - SHEET 1

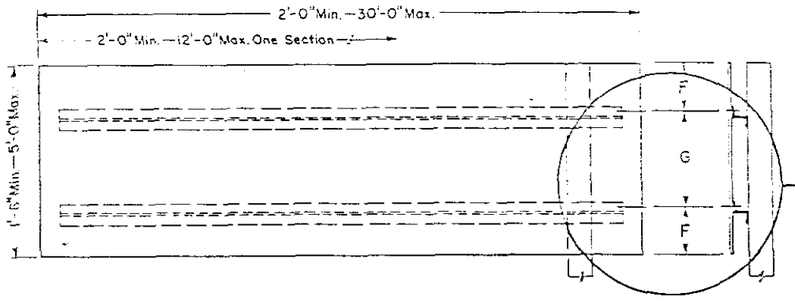
AS CONSTRUCTED						
NO REVISIONS	7-31-59	REVISED		VOID		

FEDERAL ROAD REGION NO	DISTRICT	PROJ NO	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR25-2(191)	108	22

REVISIONS		

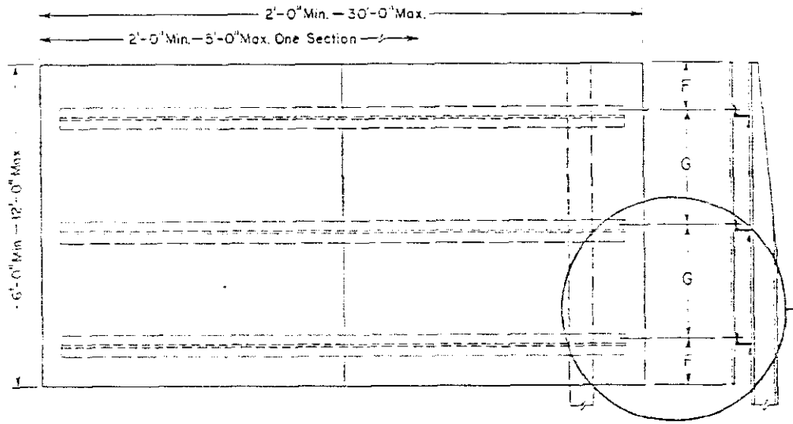
TYPICAL PANEL ELEVATIONS

HORIZONTAL SECTIONS



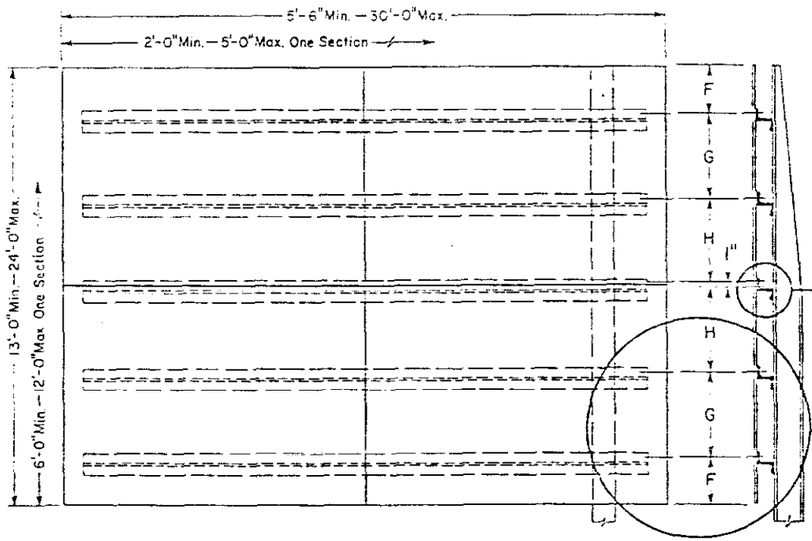
SECTIONS REQUIRED
Height x 2'-0" to 12'-0" = 1 Section
Height x 12'-6" to 24'-0" = 2 Sections
Height x 24'-6" to 30'-0" = 3 Sections

VERTICAL SECTIONS



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

MULTI-VERTICAL SECTIONS



SECTIONS REQUIRED
Height x 5'-6" to 10'-0" = 4 Sections
Height x 10'-6" to 15'-0" = 6 Sections
Height x 15'-6" to 20'-0" = 8 Sections
Height x 20'-6" to 25'-0" = 10 Sections
Height x 25'-6" to 30'-0" = 12 Sections

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS APPLICABLE TO THE PROJECT.
2. SEE THE APPLICABLE STANDARDS FOR SIGN PLACEMENT, FOOTING DETAILS AND POST SPACING TABLE.
3. A (No 6) 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.
4. 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 CIOgee WASHER SHALL BE PLACED UNDER THE BOLT HEAD ON A TIMBER POST.
5. THE EXPOSED LOCKBOLT HEADS ON THE FACE OF THE SIGN PANEL SHALL BE COVERED WITH REFLECTIVE SHEETING (TO BE A PART OF THE LOCKBOLT HEAD) TO MATCH THE BACKGROUND COLOR OF THE SIGN.
6. 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 A S T M DESIGNATION — D 1763, PART 9. ALL BONDED SURFACES SHALL BE CLEAN AND FREE OF ANY FOREIGN MATTER
7. 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.
8. FOR ADDITIONAL POST AND PANEL INFORMATION SEE THE "TABULATION OF SIGNS" INCLUDED IN THE PLANS.

SPACING TABLE FOR ALUMINUM BACKING ZEES

	SIGN NO.	PANEL SIZE	NO OF ZEES	ZEE SIZE	OVERHANG "F"	SPACING "G"	SPACING "D"
▲	1a, 1c, 1e	12'x11'	5	3"x2 11/16"x2.33	1'-2"	2'-2"	—
▲	3a, 3c	12'x11'	5	3"x2 11/16"x2.33	1'-2"	2'-2"	—
▲	7	33'x13'	7	3"x2 11/16"x2.33	1'-0"	1'-10"	1'-9 1/2"
▲	10	16'x11'	5	3"x2 11/16"x2.33	1'-2"	2'-2"	—
▲	11	20'x7'	3	3"x2 11/16"x2.33	1'-0"	2'-6"	—
▲	13a	11'x11'	5	3"x2 11/16"x2.33	1'-2"	2'-2"	—
▲	13b	16'x11'	5	3"x2 11/16"x2.33	1'-2"	2'-2"	—
▲	14c	12'x12'	5	3"x2 11/16"x2.33	1'-0"	2'-6"	—
▲	14d, 14e	11'x12'	5	3"x2 11/16"x2.33	1'-0"	2'-6"	—
▲	20a, 20b	12'x12'	5	3"x2 11/16"x2.33	1'-0"	2'-6"	—
▲	23	13'x8'	4	3"x2 11/16"x2.33	0'-9"	2'-2"	—
	26	11'x5'	2	3"x2 11/16"x2.33	1'-3"	2'-6"	—
▲	36a	11'x10'	4	3"x2 11/16"x2.33	1'-3"	2'-6"	—
▲	36b	9'x10'	4	3"x2 11/16"x2.33	1'-3"	2'-6"	—
▲	44a	16'x12'	5	3"x2 11/16"x2.33	1'-0"	2'-6"	—
▲	44b	15'x12'	5	3"x2 11/16"x2.33	1'-0"	2'-6"	—
	48	6'x5'	2	3"x2 11/16"x2.33	1'-3"	2'-6"	—
	68	6'x5'	2	3"x2 11/16"x2.33	1'-3"	2'-6"	—

▲ OVERHEAD SIGN PANEL

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

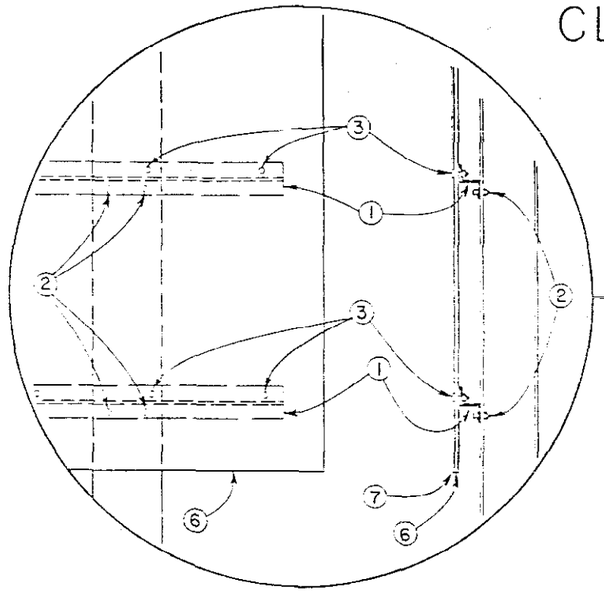
CLASS III SIGNS
SHEET ALUMINUM
PANELS

CLASS III SIGNS - SHEET 2

AS CONSTRUCTED					
NO REVISIONS [7-22-2]	REVISED [ ]	VOID [ ]			

FEDERAL ROAD REGION NO	DISTRICT	PROJ NO	SHEET NO	TOTAL SHEETS
VIII	COLORADO	IR25-2(191)	109	24

REVISIONS		



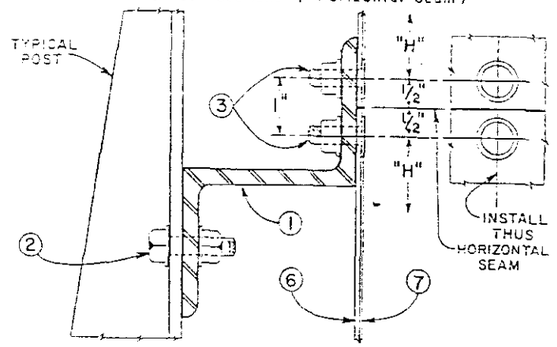
TYPICAL ELEVATION DETAIL

FABRICATION NOTES

1. BACKING ZEE. See "SPACING TABLE". Aluminum Alloy 6061-T6. Each zee to be provided with a 3/16" x 2" horizontal slot for each post mounting bolt. The length of each zee to be 1" less than the sign panel width.
2. 3/8" ∅ HEX-HEAD BOLT. With nut and washers: 2 per backing zee per post are required.
3. 3/16" ∅ (No. 6) 90° COUNTERSUNK ALUMINUM LOCKBOLT FASTENER.
4. 2" x 0.080" ALUMINUM CLOSURE STRIP.
5. 1/8" ∅ x 3/8" UNIVERSAL-HEAD, HOLLOW SHANK ALUMINUM RIVET.
6. SHEET ALUMINUM. 0.125" minimum thickness.
7. NON-EXPOSED LENS REFLECTIVE SHEETING. To have a dry (heat activated) adhesive backing

TYPICAL DETAIL
SEAM CLOSURE ZEE

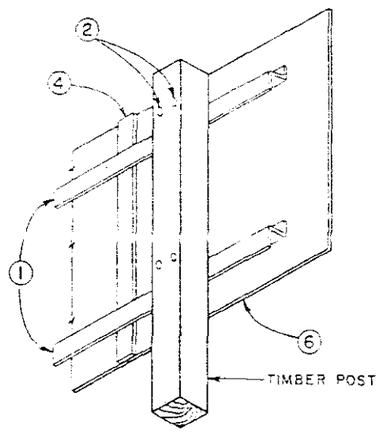
(Multi-Vertical Sections, Horizontal Seam)

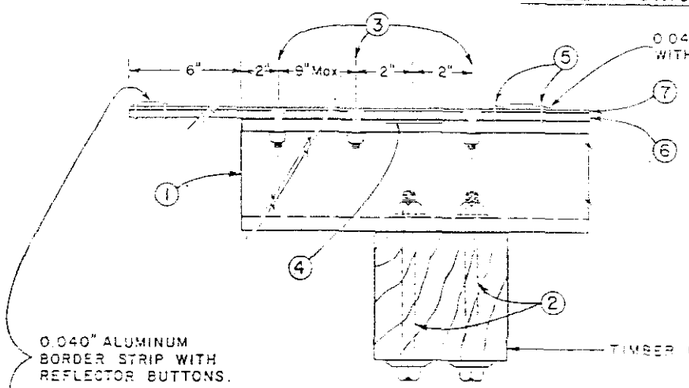


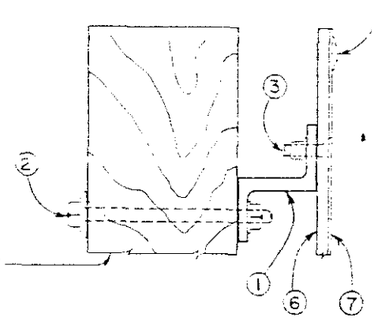
TYPICAL TIMBER POST INSTALLATION

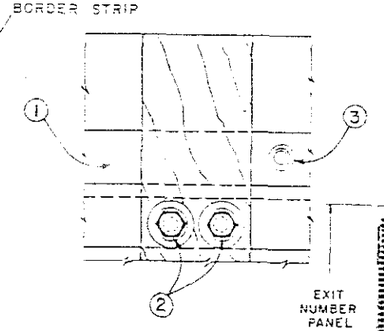
PANEL FABRICATION AND MOUNTING DETAILS

TYPICAL VIEW

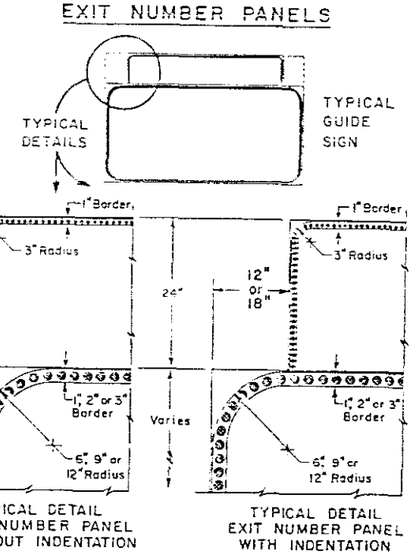








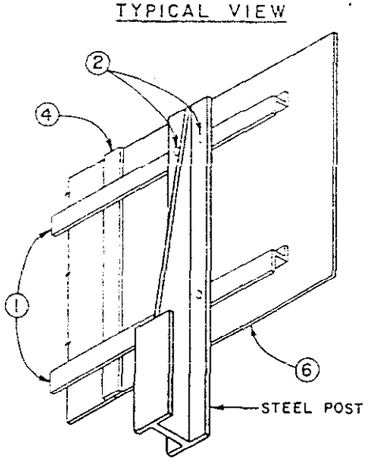
TYPICAL BORDER DETAILS
EXIT NUMBER PANELS

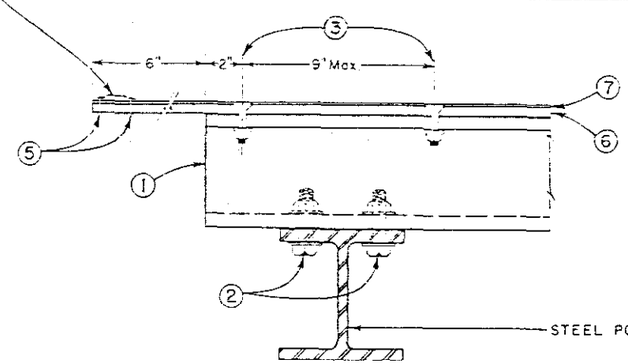


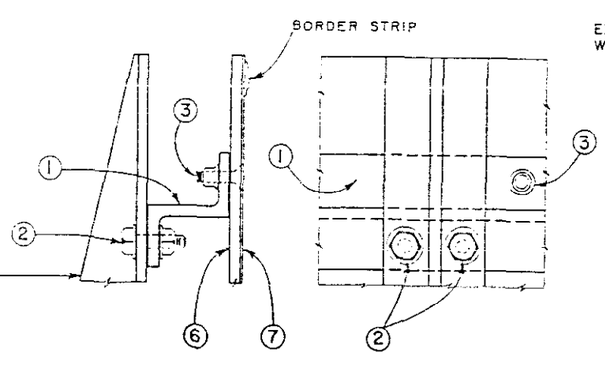
TYPICAL STEEL POST INSTALLATION

PANEL FABRICATION AND MOUNTING DETAILS

TYPICAL VIEW







DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

CLASS III SIGNS
SHEET ALUMINUM
PANELS

STANDARD S-614-5

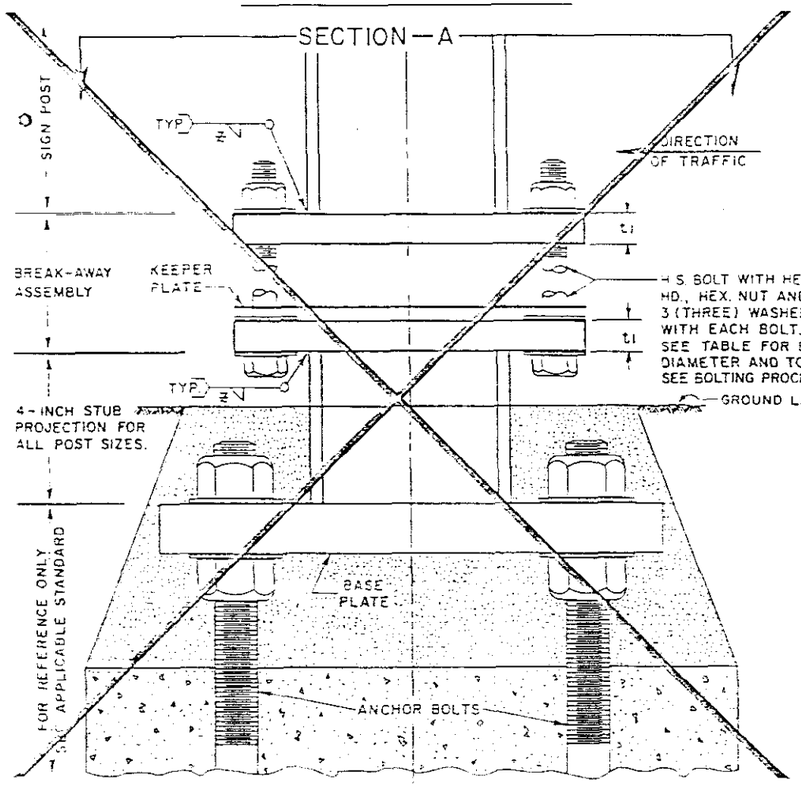
FEDERAL ROAD REGION NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR25-2(191)	110	4

REVISIONS		

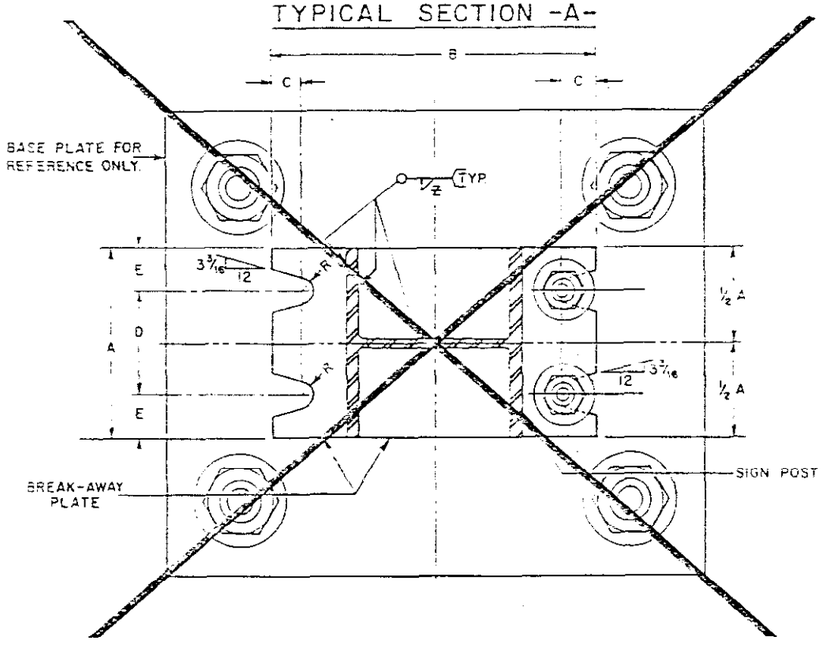
JANUARY 1982

SPECIAL FOR THIS PROJECT

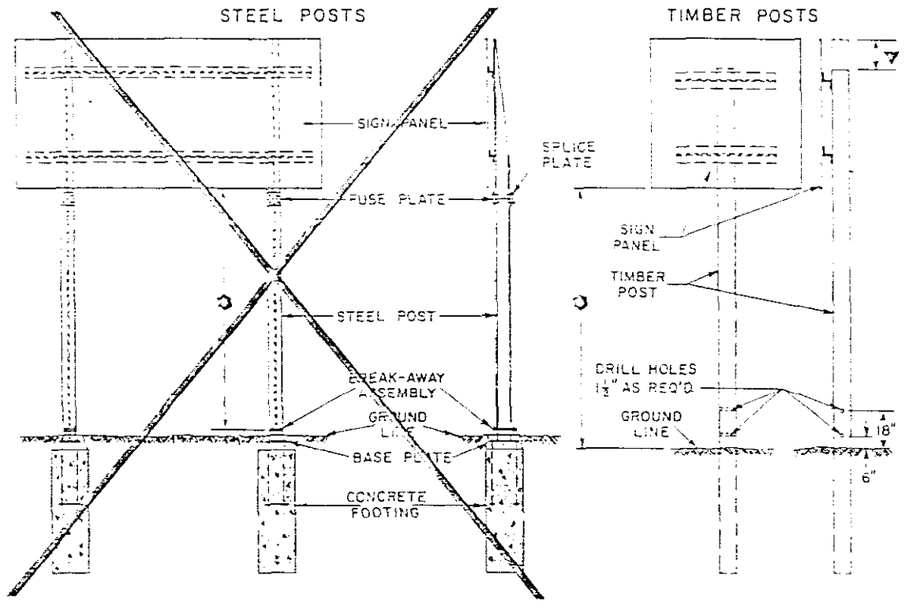
TYPICAL ELEVATION STEEL POST ASSEMBLY



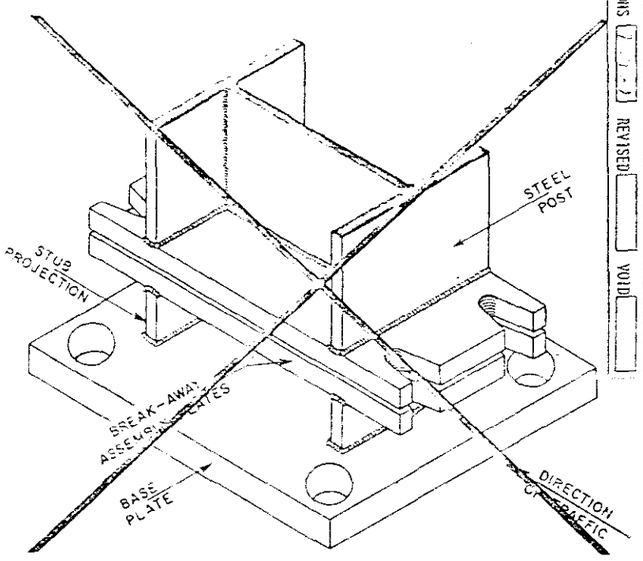
TYPICAL SECTION -A-



TYPICAL BREAK-AWAY SIGN SUPPORT INSTALLATIONS



TYPICAL PROJECTED VIEW STEEL POST ASSEMBLY



NO REVISIONS [ ] REVISED [ ] VOID [ ] AS CONSTRUCTED

GENERAL NOTES

1. All work shall be done in accordance with the Standard Specifications applicable to the Project.
2. Design conforms with AASHTO "Specifications for the Design and Construction of Structural Supports for Highway Signs".
3. ~~All structural steel shall conform to ASTM - A36 and Section 555 of the Standard Specifications.~~
4. ~~Steel fuse plates and gauge plates shall conform to ASTM - A36.~~
5. ~~All high strength bolts, nuts and washers shall conform to ASTM - A325. Washers used in the Break-Away Plate and Fuse Plate assemblies shall be of sufficient strength to prevent any deflection or "dishing" into the slotted grooves under bolt torquing.~~
6. ~~All bolts other than high strength bolts shall conform to ASTM - A307.~~
7. ~~All bolts, nuts, and washers shall be galvanized as per ASTM-A153 or ASTM-A164.~~
8. ~~All holes except at fuse plate may be drilled or sub punched and reamed.~~
9. ~~All steel cuts shall preferably be saw cuts; however, flame cutting will be permitted provided all edges are ground. Remove all burrs. Metal shall not project beyond the plane of the plate face.~~
10. ~~A "Gauge Plate" of not less than 10 gage galvanized sheet metal, fabricated to match break-away plate dimensions but with holes rather than slots, shall be used to restrain bolt loosening due to wind vibration.~~
11. ~~High strength bolts in the break-away assembly shall be tightened only to the torque shown in the table. DO NOT OVERTIGHTEN.~~
12. ~~The "STUB POST" and one "BREAK-AWAY PLATE" are considered part of the footing. The other "BREAK-AWAY PLATE" and all nuts, bolts, washers and keeper plate for fastening the break-away plates are considered to be a part of the post.~~
13. Timber posts shall be in accordance with Section 614 of the Standard Specifications as to Size, Alternate Size, Grade, Species, Treatment, and Break-Away Holes.
14. ~~For all base plate and footing work see the applicable Standard included in the plans.~~
15. For additional information, refer to "Tabulation of Signs" and "Cross Sections for Class III Signs" included in the plans.
16. Timber post flush with top of sign panel for direct mount and 3 3/16" minimum above bolt for backing zee mount.
17. Minimum post length from bottom of sign panel to break-away assembly or ground line shall be 7' (in no case shall a backing zee be placed below the fuse plates).

BREAK-AWAY PLATE DATA TABLE

POST SIZE \ DIMENSION	BOLT SIZE AND TORQUE	A	B	C	D	E	t1	WELD R	STUB POST LENGTH
W 12 x 40	7/8" ø x 3¼" 1,135 In. Lb.	8"	19¼"	1⅞"	4"	2"	1¼"	⅜"	15/32"	0'-4"
W 12 x 35	¾" ø x 3½" 750 In. Lb.	5½"	17"	⅞"	3½"	1½"	1"	5/16"	13/32"	0'-4"
W 10 x 26		5¾"	15⅛"	⅞"	3¼"	1¼"	1"	5/16"	13/32"	0'-4"
W 10 x 22		5¾"	14⅝"	⅞"	3"	1¼"	1"	5/16"	13/32"	0'-4"
W 8 x 21		5¼"	12⅜"	⅞"	2¾"	1¼"	¾"	5/16"	13/32"	0'-4"
W 8 x 18		5¼"	12"	¾"	3"	1⅛"	¾"	¼"	11/32"	0'-4"
W 6 x 15	⅝" ø x 2¾" 450 In. Lb.	6"	10"	¾"	3¾"	1⅛"	¾"	¼"	11/32"	0'-4"
W 6 x 12		5"	10"	¾"	2¾"	1⅛"	¾"	¼"	11/32"	0'-4"

BOLTING PROCEDURE FOR BREAK-AWAY PLATE ASSEMBLY

1. Assemble post to stub with bolts — one flat washer on each bolt top and bottom, and one flat washer and the keeper plate between the break-away plates.
2. Tighten all bolts to a "snug tight" condition with a 12" to 15" wrench to bed washers and to clean bolt threads, then loosen each bolt in turn and retighten in a systematic order to the prescribed torque. (See Break-Away Plate Data Table)
3. Burr threads at junction with nut to prevent nut loosening.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

BREAK-AWAY SIGN SUPPORT DETAILS FOR GROUND SIGNS

Designed By: J. J. B.	Approved By: Staff Traffic &
Made By: F. J. B.	Safety Projects Engineer
Checked By: J. E. M.	Date: January, 1980

OVERHEAD SIGNS — SHEET 1

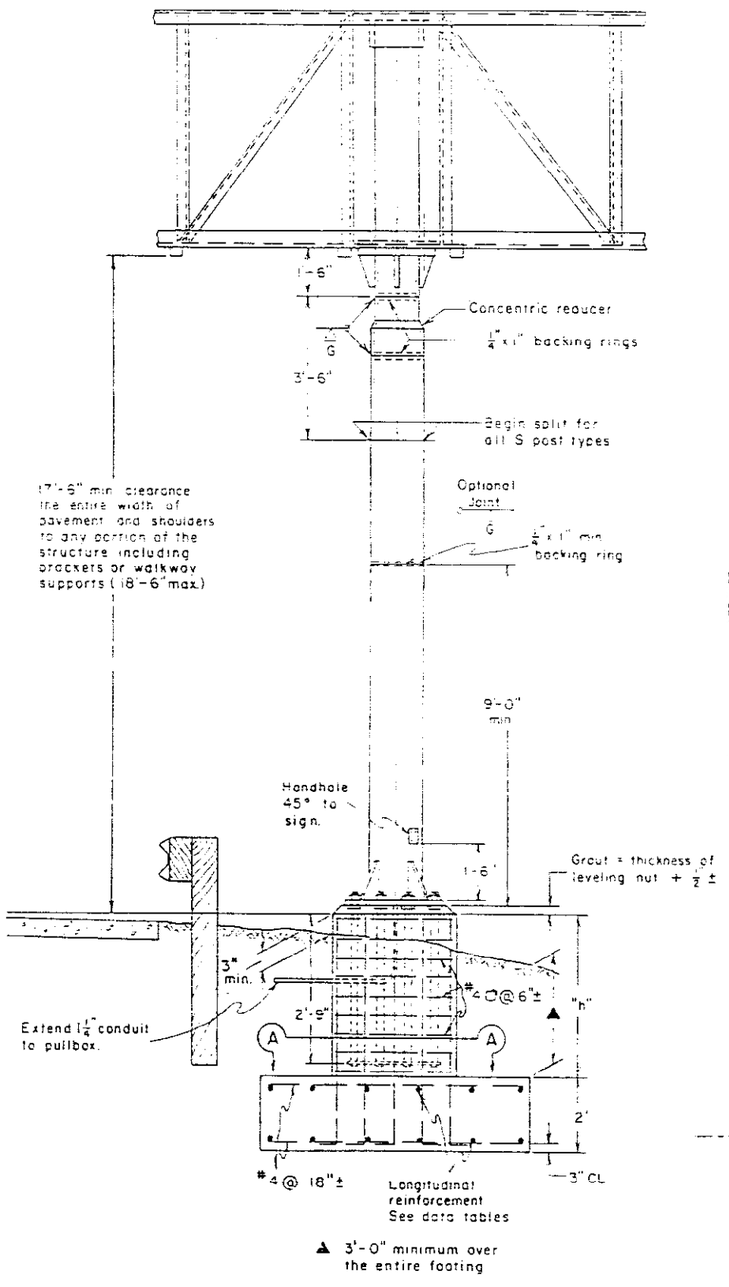
FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR25-2(191)	111.	24

AS CONSTRUCTED

NO REVISIONS 7 - 2 REVISED [ ] VOID [ ]

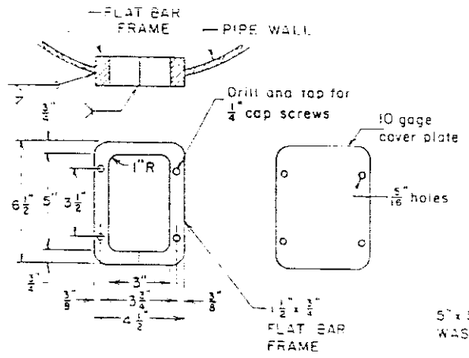
REVISIONS		

ELEVATION



▲ 3'-0" minimum over the entire footing

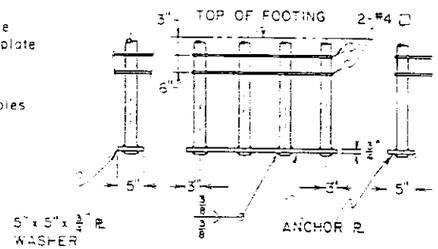
HANDHOLE DETAILS



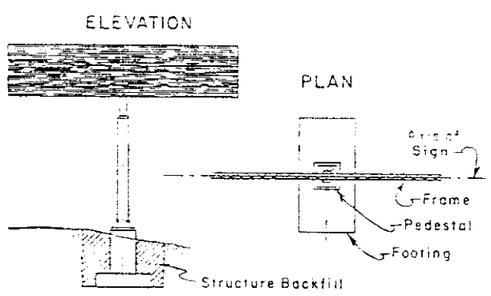
ANCHORAGE DETAILS

SIDE BOLT (Type III thru VII only - 2 Required)

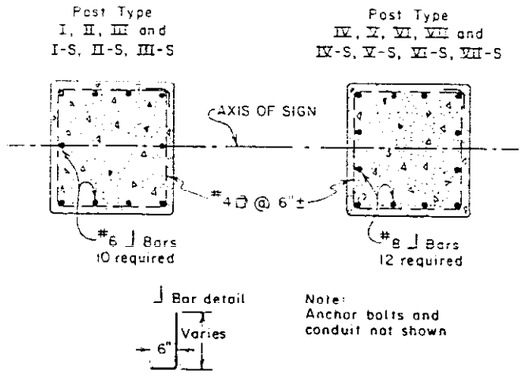
FRONT & BACK BOLTS (All Types - 2 Required shown for 4 bolts and similar for 2 and 3 bolts)

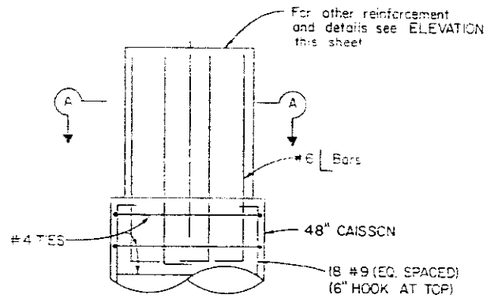


TYPICAL VIEWS



SECTION A-A





DETAIL 1

(FOR SIGN NO. 20 - RIGHT PEDESTAL ONLY)

GENERAL NOTES

1. All work shall be done in accordance with Standard Specifications applicable to the project and "Standard Specifications For Structural Supports For Highway Signs, Luminaires And Traffic Signals", A.A.S.H.T.O current issue.
2. Wind loading 28 P.S.F normal to panel area
3. UNIT STRESSES:
   a. Structural steel: F_s = 18,000 P.S.I
   b. Reinforced concrete: F_s = 20,000 P.S.I.
   c. Footing soil pressure: 1 1/4 TONS / SQ. FT.
   d. Allowable unit stresses due to wind load or wind load in combination with other forces are increased 33 1/3 %.
4. For reinforcement, embedment is clear to outside of bar and is 2" to main reinforcement, except as shown.
5. Base plates, pedestals, and footings, longer sides shall be normal to the axis of sign
6. Backfill shall be in place prior to erection of post
7. On single post sign structures, the post shall be raked out of plumb with the use of the leveling nuts to make the bottom of the sign frame level.
8. Ground one post of each structure.
9. Tapered tube of equivalent size and thickness may be substituted for pipe post
10. For SIGN BRIDGES only, a constant diameter pipe post of the base section size may be used in lieu of the two diameter sections shown.

TABULATION OF POSTS AND PEDESTALS

SIGN NO.	STRUCTURE TYPE	POST TYPE	PEDESTAL HEIGHT "h" ONE POST	TWO POSTS Lt.	TWO POSTS Rt.
1	SIGN BRIDGE	III-S	—	▮▲ 4'-0"	9'-0"
11	BUTTERFLY	II-S	▲6'-0"	—	—
13	SIGN BRIDGE	III-S	—	▲ 6'-0"	6'-0"
20	SIGN BRIDGE	III-S	—	▲6'-0"	9'-6" ●
23	CANTILEVER	V	4'-6"	—	—
36	SIGN BRIDGE	II-S	—	▲6'-0"	7'-0"
44	SIGN BRIDGE	III-S	—	▲6'-0"	7'-0"
7	SIGN BRIDGE	III-S	—	* ◪	◪

▲ POST LENGTH TO BE REDUCED 2'-8" (THE NORMAL CONCRETE MEDIAN BARRIER HEIGHT TO WHICH THE PEDESTAL IS TO BE BUILT)

◪ PEDESTAL ON CAISSON - SEE DETAIL 1

◪ EXISTING PEDESTAL

* POST LENGTH TO BE REDUCED 2'-1" (THE EXISTING PEDESTAL HEIGHT ABOVE ROADWAY).

▮ APPROXIMATE PEDESTAL HEIGHT. PEDESTAL ON FOOTING THAT IS ON CAISSONS - SEE DETAIL 2 SHT 2

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

OVERHEAD SIGNS POSTS & FOOTINGS (SPREAD)

OVERHEAD SIGNS — SHEET 2

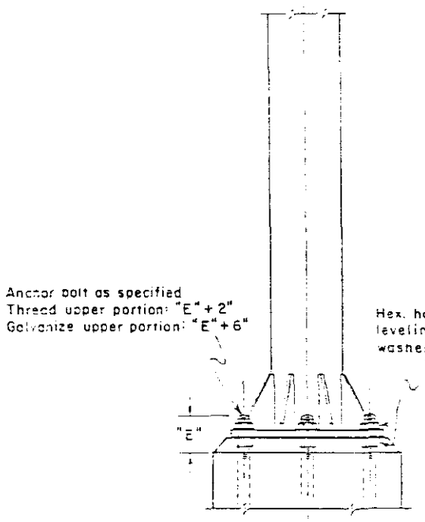
FEDERAL ROAD REGION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR25-2(191)	112	2[illegible]

AS CONSTRUCTED

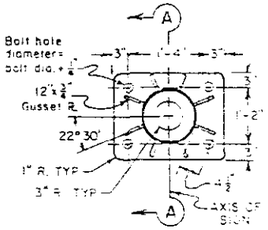
NO REVISIONS [illegible] REVISED [ ] VOID [ ]

REVISIONS		

POSTS TYPES I - VII & BASE PLATES



4 ANCHOR TYPE



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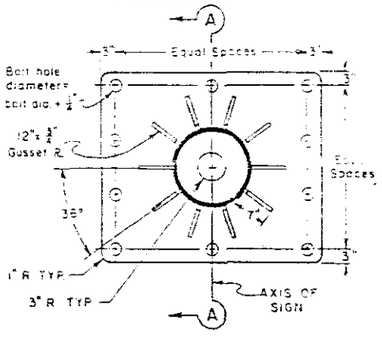

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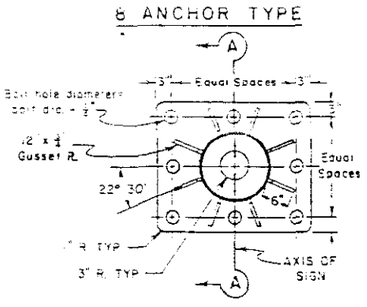
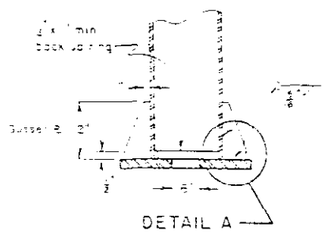
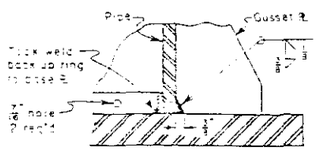


SECTION A-A

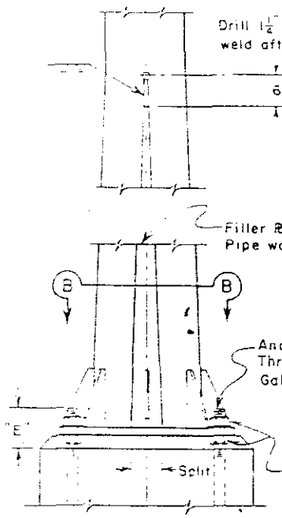
COMMON TO ALL TYPES



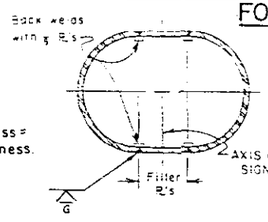
DETAIL A



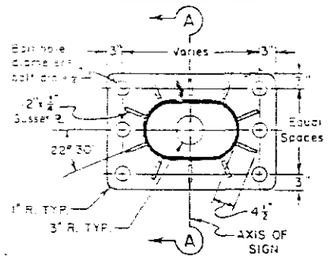
POSTS TYPES I-S - VII-S & BASE PLATES



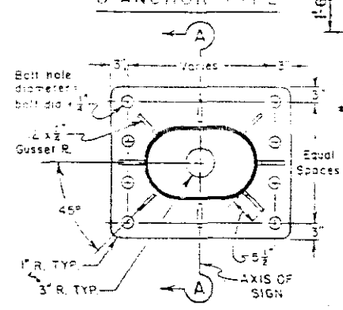
SECTION B-B



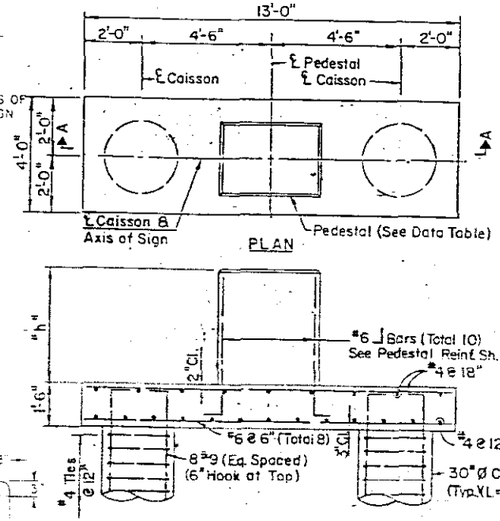
6 ANCHOR TYPE



8 ANCHOR TYPE



FOOTING FOR SIGN NO. 1 (LT. PEDESTAL ONLY)



SECTION A-A

TYPES I THRU VII DATA TABLE

POST TYPE	PIPE SIZES: BASE SECTION	PIPE SIZES: UPPER SECTION	REDUCER LENGTH	"E"	BASE PLATE SIZE	ANCHOR BOLTS	PEDESTAL SIZE	FOOTING SIZE	LONGITUDINAL FOOTING REINFORCEMENT: TOP	LONGITUDINAL FOOTING REINFORCEMENT: BOTTOM
I	10" Std. @ 40.48	8" Std. @ 28.55	7"	8"	1'-10" x 1'-8" x 1½"	4 - 2" ϕ	2'-5" x 2'-3"	5'-0" x 9'-0"	6 - #4 bars	6 - #4 bars
II	12" Std. @ 49.56	10" Std. @ 34.24	8"	7½"	2'-4" x 2'-1" x 1½"	8 - 1¾" ϕ	2'-11" x 2'-8"	6'-0" x 10'-0"	6 - #4 bars	6 - #4 bars
III	14" O.D. @ 72.09	12" Std. @ 43.77	1'-1"	8½"	2'-7" x 2'-3" x 1¾"	8 - 2" ϕ	3'-2" x 2'-10"	7'-0" x 12'-0"	6 - #5 bars	6 - #5 bars
IV	16" O.D. @ 82.77	14" O.D. @ 54.57	1'-2"	8½"	3'-1" x 2'-9" x 2"	10 - 2" ϕ	3'-8" x 3'-4"	7'-0" x 13'-0"	6 - #5 bars	6 - #5 bars
V	18" O.D. @ 93.45	16" O.D. @ 62.58	1'-3"	8½"	3'-3" x 3'-0" x 1¾"	10 - 2" ϕ	3'-10" x 3'-7"	8'-0" x 14'-0"	7 - #5 bars	7 - #6 bars
VI	20" O.D. @ 104.13	18" O.D. @ 70.59	1'-8"	8½"	3'-3" x 3'-0" x 2"	10 - 2" ϕ	3'-10" x 3'-7"	9'-0" x 15'-0"	6 - #6 bars	6 - #7 bars
VII	24" O.D. @ 125.49	20" O.D. @ 78.60	1'-8"	10"	3'-7" x 3'-3" x 2½"	10 - 2¼" ϕ	4'-3" x 3'-11"	10'-0" x 17'-0"	7 - #6 bars	7 - #8 bars

TYPES I-S THRU VII-S DATA TABLE

POST TYPE	PIPE SIZES: BASE SECTION	PIPE SIZES: UPPER SECTION	REDUCER LENGTH	"E"	SPLIT	BASE PLATE SIZE	ANCHOR BOLTS	PEDESTAL SIZE	FOOTING SIZE	LONGITUDINAL FOOTING REINFORCEMENT: TOP	LONGITUDINAL FOOTING REINFORCEMENT: BOTTOM
I-S	10" Std. @ 40.48	8" Std. @ 28.55	7"	6½"	4"	2'-1" x 1'-9" x 1½"	6 - 1½" ϕ	2'-7" x 2'-3"	5'-0" x 10'-0"	5 - #4 bars	5 - #6 bars
II-S	12" Std. @ 49.56	10" Std. @ 34.24	8"	7½"	5"	2'-5" x 1'-11" x 1½"	6 - 1¾" ϕ	3'-0" x 2'-6"	6'-0" x 11'-0"	6 - #4 bars	6 - #7 bars
III-S	14" O.D. @ 72.09	12" Std. @ 43.77	1'-1"	8½"	5"	2'-9" x 2'-0" x 2"	6 - 2" ϕ	3'-4" x 2'-7"	7'-0" x 13'-0"	7 - #4 bars	7 - #8 bars
IV-S	16" O.D. @ 82.77	14" O.D. @ 54.57	1'-2"	8½"	6"	2'-11" x 2'-7" x 2"	8 - 2" ϕ	3'-6" x 3'-2"	8'-0" x 14'-0"	8 - #5 bars	8 - #9 bars
V-S	18" O.D. @ 93.45	16" O.D. @ 62.58	1'-3"	8½"	7"	3'-1" x 2'-9" x 2"	8 - 2" ϕ	3'-8" x 3'-4"	8'-0" x 16'-0"	8 - #5 bars	8 - #9 bars
VI-S	20" O.D. @ 104.13	18" O.D. @ 70.59	1'-8"	8½"	8"	3'-5" x 2'-9" x 2"	8 - 2" ϕ	4'-0" x 3'-4"	9'-0" x 17'-0"	9 - #5 bars	9 - #10 bars
VII-S	24" O.D. @ 125.49	20" O.D. @ 78.60	1'-8"	9½"	8"	3'-9" x 3'-3" x 2"	8 - 2¼" ϕ	4'-5" x 3'-11"	10'-0" x 18'-0"	10 - #6 bars	10 - #11 bars

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

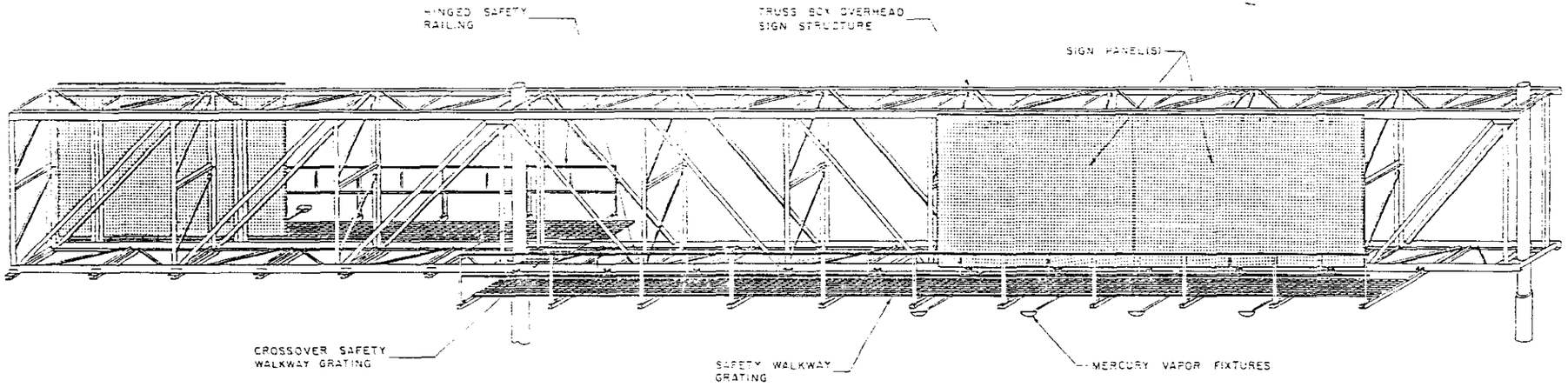
OVERHEAD SIGNS
POSTS &
FOOTINGS (SPREAD)

OVERHEAD SIGNS – SHEET 3

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO	TOTAL SHEETS
[illegible]	COLORADO	IR25-2(191)	113	[illegible]

REVISIONS

AS CONSTRUCTED			
NO REVISION	[illegible]	REVISED	VOID



TYPICAL VIEW OF ASSEMBLED MEMBERS

GENERAL NOTES

1. All work shall be done in accordance with:
   (a) the Standard Specifications applicable to the project.
   (b) the "Manual on Uniform Traffic Control Devices for Streets and Highways" published by the Federal Highway Administration, and the latest revision of the Colorado Supplement thereto.
   (c) AASHO specifications for the design and construction of Structural Supports for Highway Signs.
2. Safety walkway grating shall be welded-type with 1¼" x ⅛" bearing bars at 1 3/16" centers and 3/16" dia. (or equal) crossbars at 4" centers.
3. Brackets to be evenly spaced with a maximum center to center spacing of 5'-6".
4. Bolts, nuts, washers, etc. shall be galvanized or cadmium plated
5. Walkway grating, brackets and railing shall be painted in accordance with Section 509, wiring shall be in accordance with Section 613.
6. Crossover safety walkway to be used when sign bridges have sign panels facing two directions

LIGHTING NOTES

1. Fixtures shall be watertight, dustproof and designed for ease of lamp replacement
2. Lamp shall be of the Mercury Vapor type (400 Watt). Lamps and ballasts shall be designed to operate over an ambient temperature range of −25° F to +120° F.
3. Ballasts shall operate from a 120 volt, 60 hz., single phase source with a regulated output of ± 12%. Ballasts shall be housed in a watertight dustproof encloser.
4. The type, number and spacing of fixtures shall be per manufactures specifications to maintain a maximum initial illumination of the sign face of 30 foot candles to 60 foot candles with a maximum uniformity ratio (maximum illumination / minimum illumination) of 5:1.
5. Fixture and mounting details will be subject to approval by the Engineer.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
LIGHT FIXTURE
AND
SAFETY WALKWAY
DETAILS

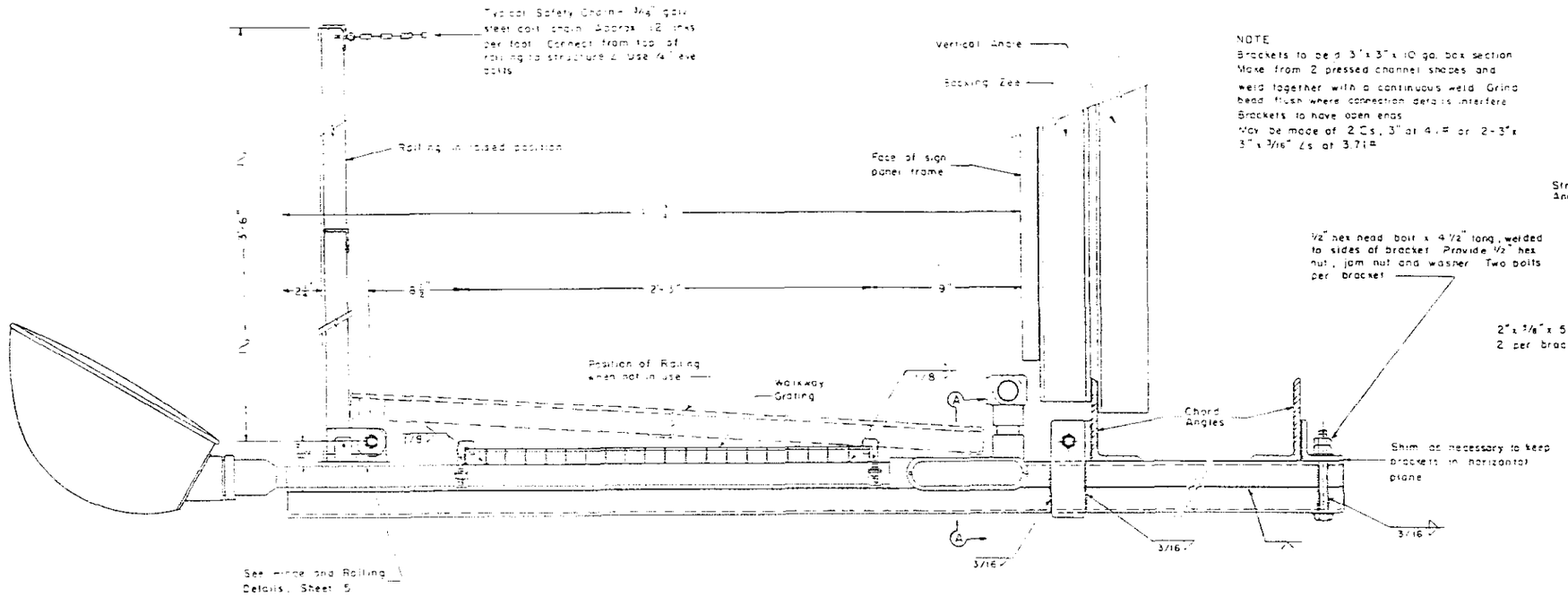
OVERHEAD SIGNS - SHEET 4

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR25-2(191)	11.4	

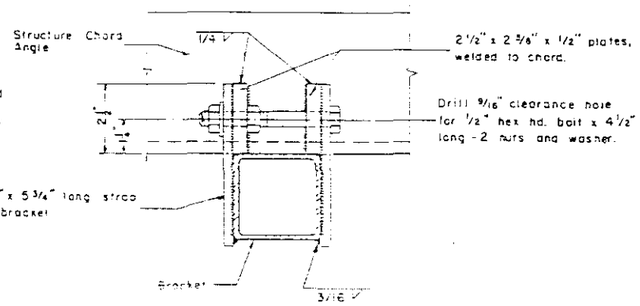
REVISIONS

AS CONSTRUCTED

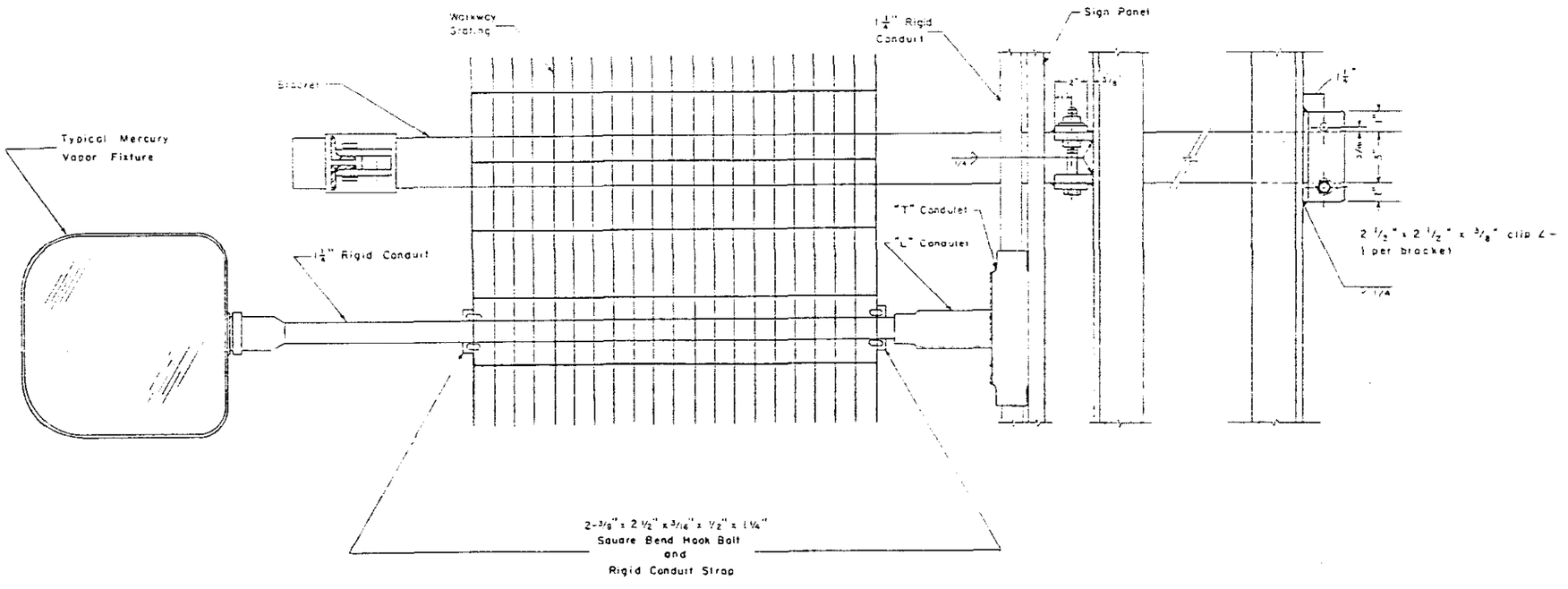
NO REVISIONS [illegible] REVISED [ ] VOID [ ]

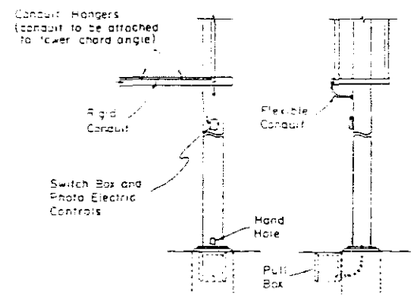


NOTE
Brackets to be a 3" x 3" x 10 ga. box section. Make from 2 pressed channel shapes and weld together with a continuous weld. Grind bead flush where connection details interfere. Brackets to have open ends. May be made of 2 ⊏s, 3" at 4.1# or 2-3" x 3" x 3/16" ∠s at 3.71#



SECTION A-A





TYPICAL ELECTRICAL CONNECTION DETAIL

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
LIGHT FIXTURE
AND
SAFETY WALKWAY
DETAILS

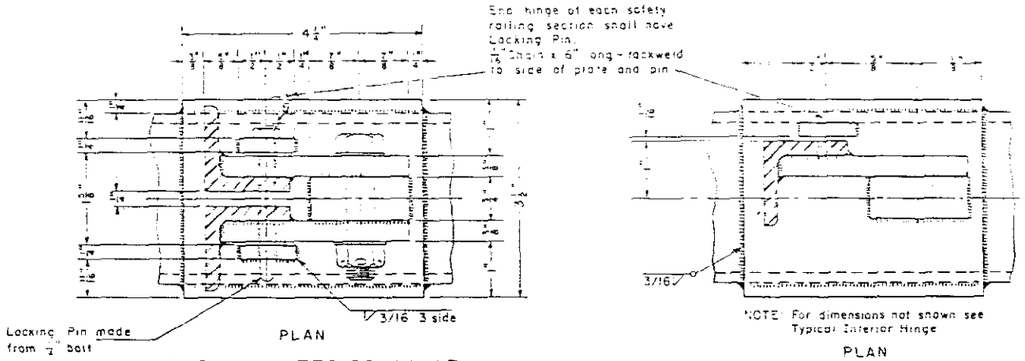
OVERHEAD SIGNS - SHEET 5

FEDERAL ROAD REGION NO	DIVISION	PROJ NO.	SHEET NO	TOTAL SHEETS
VIII	COLORADO	IR25-2(191)	115	2[illegible]

REVISIONS			

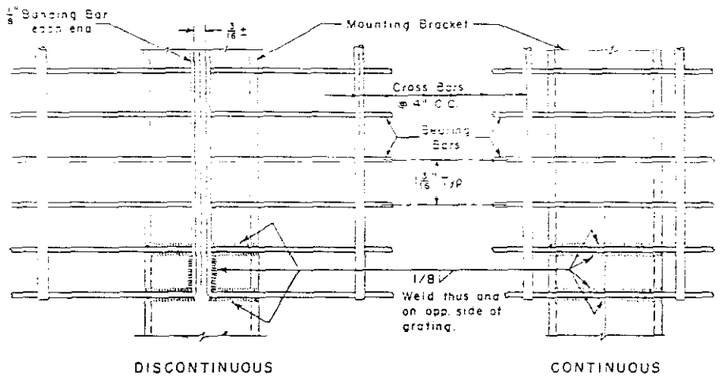
AS CONSTRUCTED

NO REVISION [illegible] REVISED [ ] VOID [ ]

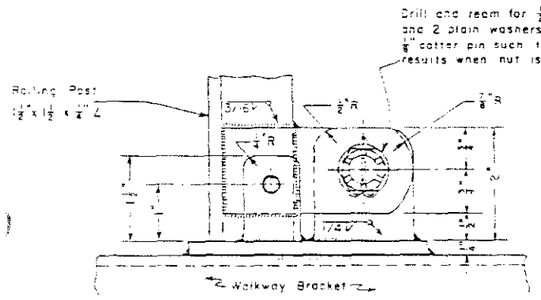


TYPICAL INTERIOR HINGE

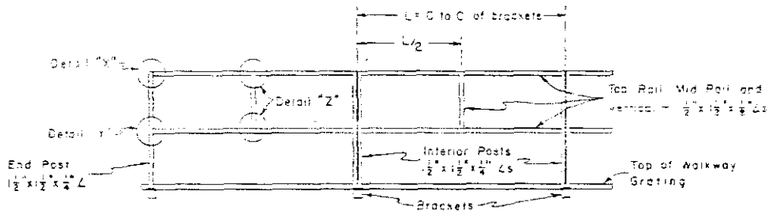
TYPICAL EXTERIOR HINGE



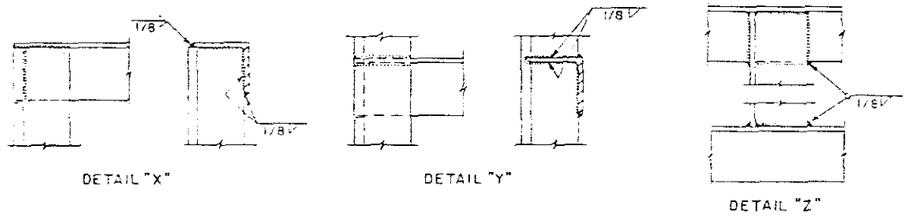
TYPICAL WALKWAY GRATING

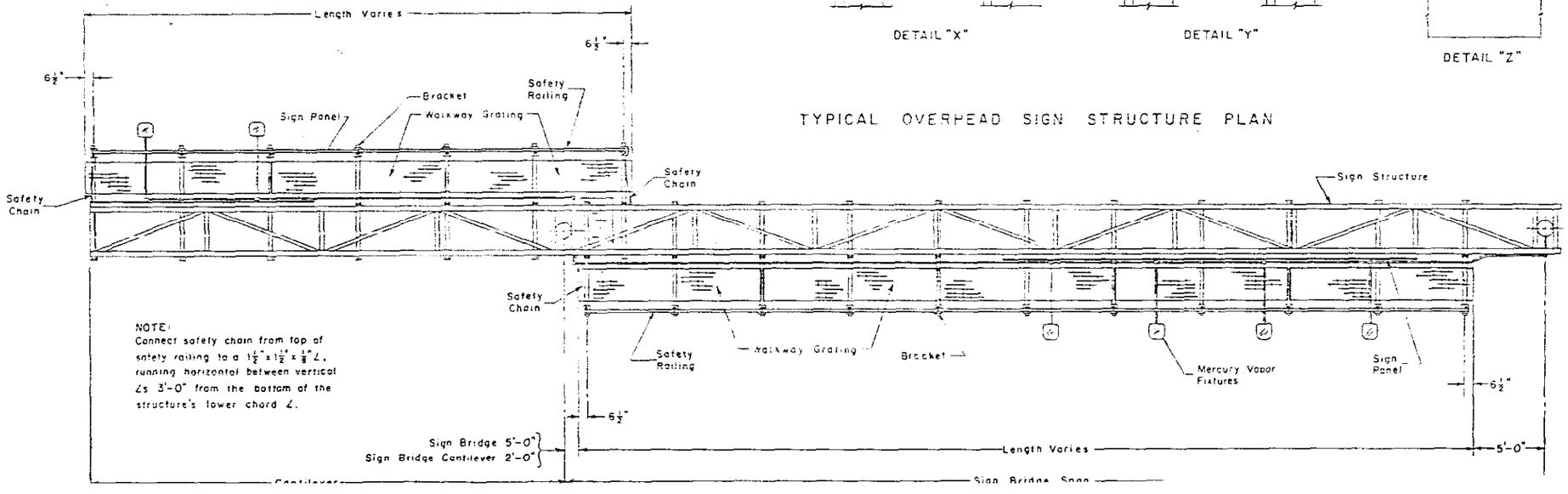


TYPICAL INTERIOR HINGE



TYPICAL SAFETY RAILING ELEVATION AND DETAILS





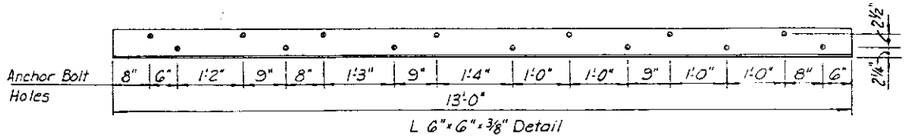
TYPICAL OVERHEAD SIGN STRUCTURE PLAN

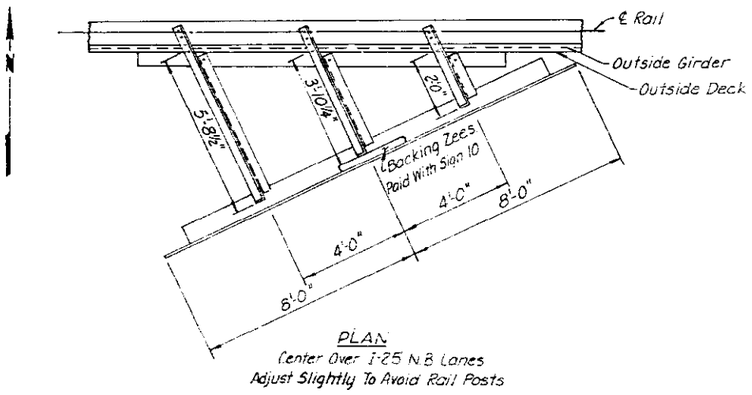
DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS
LIGHT FIXTURE
AND
SAFETY WALKWAY
DETAILS

AS CONSTRUCTED
NO REVISIONS 7-21-21 REVISED NO.

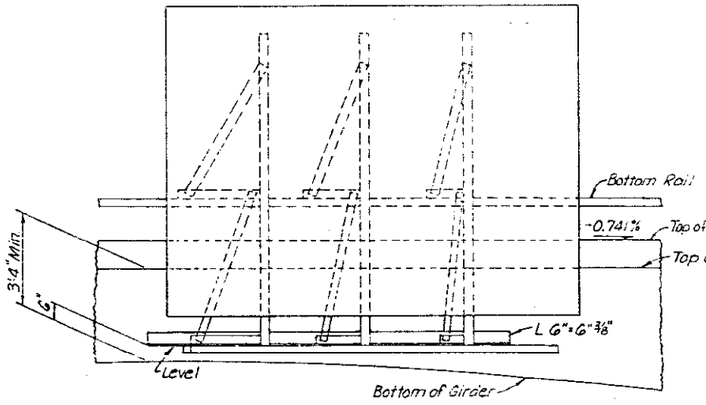
FED. ROAD REGION	STATE	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	IR 25-2(191)	116	242

REVISIONS		

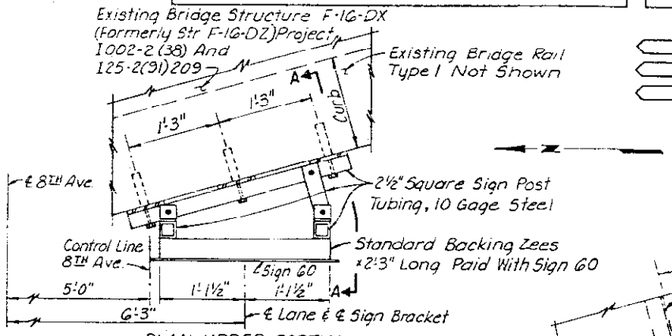




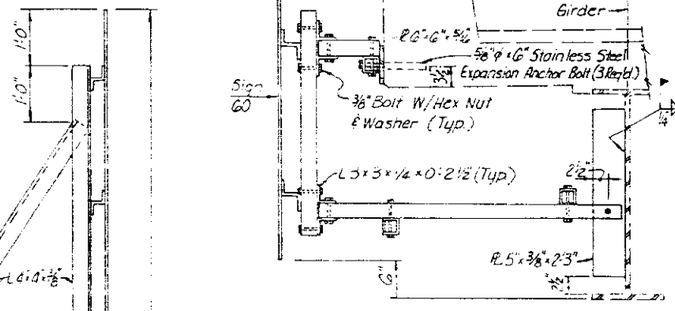
PLAN
Center Over I-25 N.B. Lanes
Adjust Slightly To Avoid Rail Posts



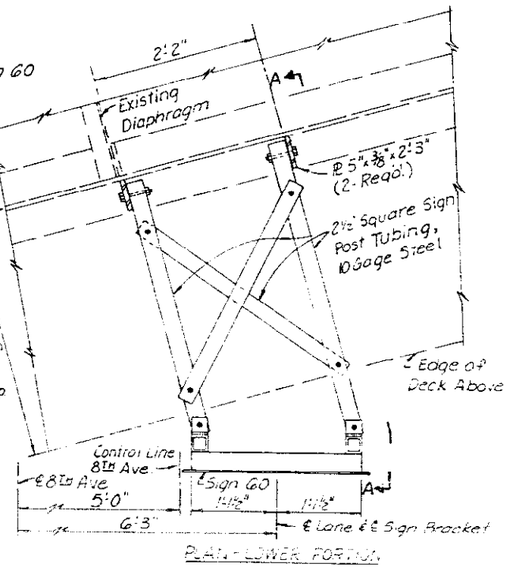
ELEVATION



PLAN-UPPER PORTION



SECTION A-A



PLAN-LOWER PORTION

BRACKET FOR
SIGN 60

FRAME DETAIL

BRACKET FOR
SIGN 10

NOTES:

1. All Work Necessary to Mount Brackets Shall Be Paid As Item G14 Overpass Mounted Sign Bracket
2. Applicable Specifications And Project Special Provisions Apply to This Work.
3. Contractor Shall Account For Dead Load Deflections And Construct Signs Level And Plumb.

OVERPASS MOUNTED SIGN BRACKET

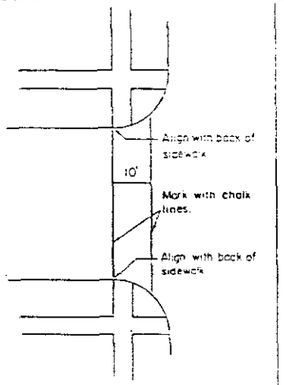
FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR25-2(191)	117	234

AS CONSTRUCTED

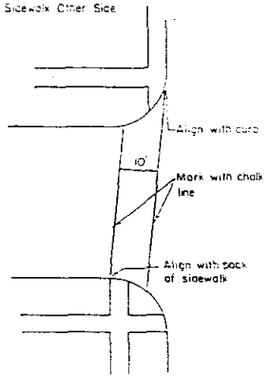
NO REVISIONS [7 - - -] REVISED [ ] VOID [ ]

TYPICAL TRANSVERSE ALIGNMENT

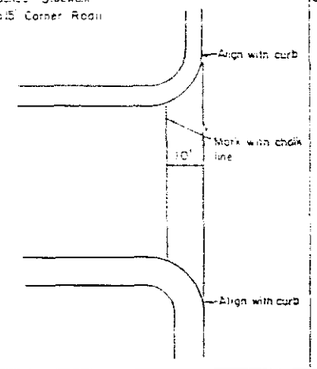
a. Setback Sidewalk



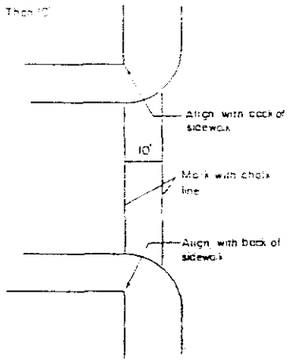
b. Setback Sidewalk One Side
Attached Sidewalk Other Side



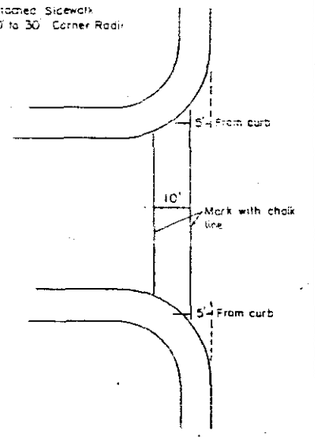
c. Attached Sidewalk
5 to 15 Corner Radii



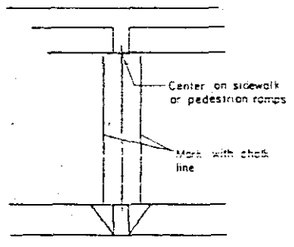
d. Attached Sidewalk
Wider Than 10'



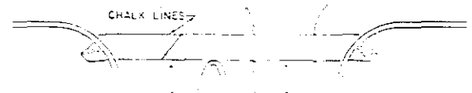
e. Attached Sidewalk
20' to 30' Corner Radii



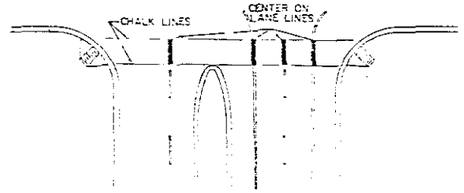
f. Midblock Location



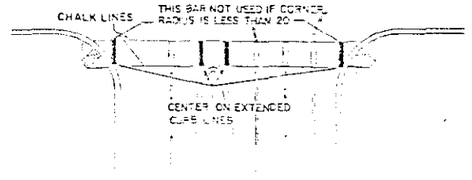
1. Locate Transverse Alignment



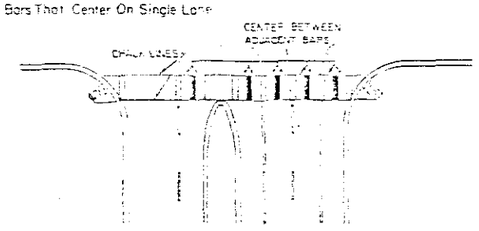
2. Locate Bars That Align With Pavement Marking



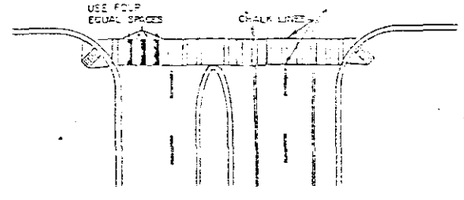
3. Locate Bars That Align With Curbs



4. Locate Bars That Center On Single Lane



5. Locate Bars on Combination Parking Lanes



6. Completed Layout

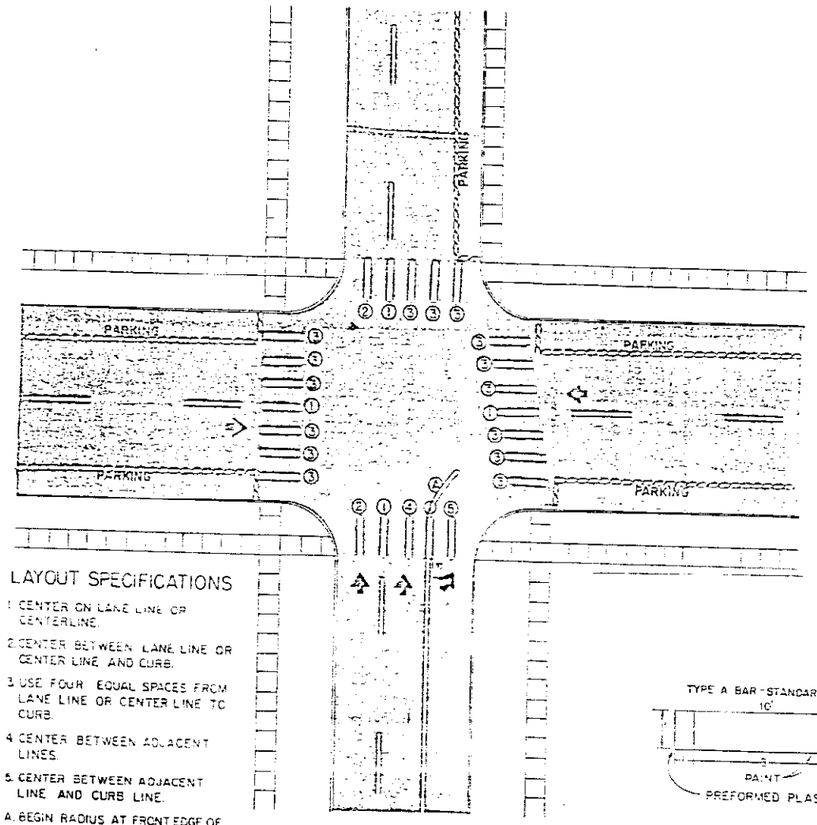
TRAFFIC ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY and COUNTY of DENVER, COLORADO

FEDERAL ROAD REGION NO	DIVISION	PROJ. NO.	SHEET NO	TOTAL SHEETS
VIII	COLORADO	IR25-2(191)	118	24

AS CONSTRUCTED

NO REVISIONS [ ] REVISED [ ] VOID [ ]

TYPICAL SINGLE LANE AND ONE WAY APPROACHES
PAVEMENT MARKINGS
CONTINENTAL TYPE CROSSWALKS

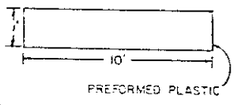


LAYOUT SPECIFICATIONS

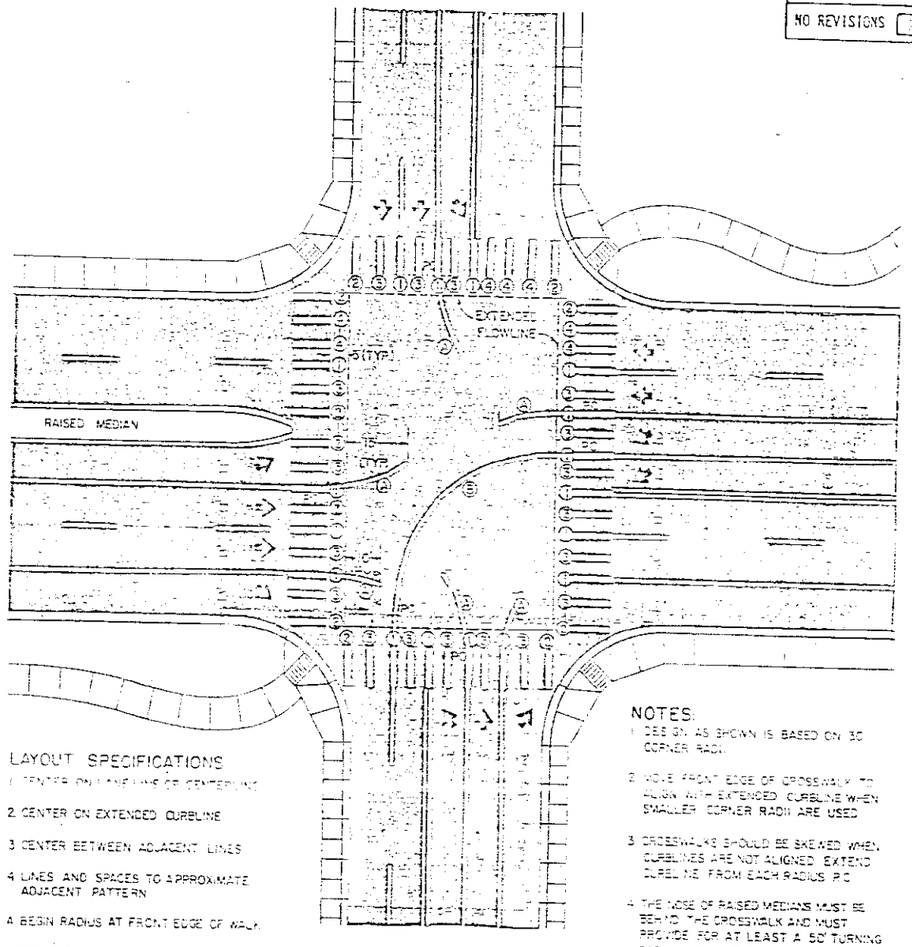
1. CENTER ON LANE LINE OR CENTERLINE.
2. CENTER BETWEEN LANE LINE OR CENTER LINE AND CURB.
3. USE FOUR EQUAL SPACES FROM LANE LINE OR CENTER LINE TO CURB.
4. CENTER BETWEEN ADJACENT LINES.
5. CENTER BETWEEN ADJACENT LINE AND CURB LINE.
6. BEGIN RADIUS AT FRONT EDGE OF CROSSWALK, USE 50' RADIUS

TYPE A BAR - STANDARD

TYPE B BAR - OPTIONAL



TYPICAL MULTI LANE APPROACHES
PAVEMENT MARKINGS
CONTINENTAL TYPE CROSSWALKS



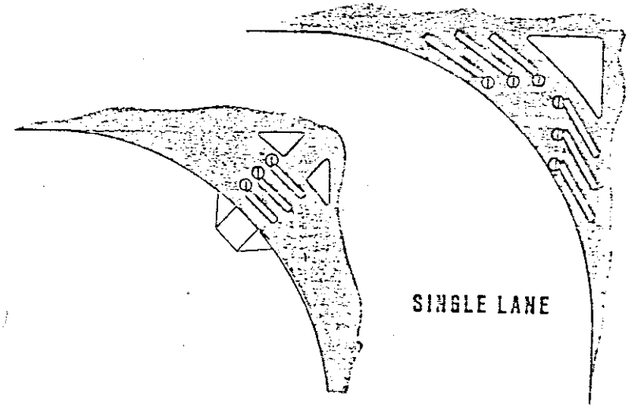
LAYOUT SPECIFICATIONS

1. CENTER ON LANE LINE OR CENTERLINE
2. CENTER ON EXTENDED CURBLINE
3. CENTER BETWEEN ADJACENT LINES
4. LINES AND SPACES TO APPROXIMATE ADJACENT PATTERN
5. BEGIN RADIUS AT FRONT EDGE OF WALK
6. USE RADIUS THAT WILL PLACE EACH P.C. AT THE FRONT EDGE OR BEYOND FRONT EDGE OF CROSSWALK

NOTES:

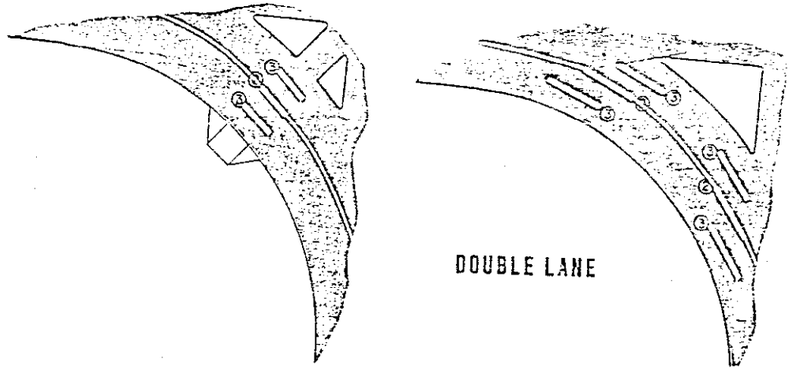
1. DESIGN AS SHOWN IS BASED ON 30' CORNER RADII.
2. MOVE FRONT EDGE OF CROSSWALK TO ALIGN WITH EXTENDED CURBLINE WHEN SMALLER CORNER RADII ARE USED.
3. CROSSWALKS SHOULD BE SKEWED WHEN CURBLINES ARE NOT ALIGNED. EXTEND CURBLINE FROM EACH RADIUS P.C.
4. THE NOSE OF RAISED MEDIANS MUST BE BEHIND THE CROSSWALK AND MUST PROVIDE FOR AT LEAST A 50' TURNING RADIUS FOR LEFT TURN FROM CROSS STREET.

TYPICAL BYPASS CROSSWALKS



LAYOUT SPECIFICATION

1. USE FOUR EQUAL SPACES FROM CURB TO CURB, KEEP BARS PARALLEL TO EACH OTHER AND GENERALLY IN LINE WITH TRAFFIC FLOW.
2. CENTER ON LANE LINES
3. USE TWO EQUAL SPACES FROM CENTER BAR TO CURB, KEEP BARS PARALLEL TO EACH OTHER AND GENERALY IN LINE WITH TRAFFIC FLOW.



NOTES:

CENTER CROSSWALK ON PEDESTRIAN RAMPS WHEN PRESENT

See following pages for examples of typical applications. ALWAYS KEEP BARS PARALLEL TO EACH OTHER even if crosswalk is skewed

TRAFFIC ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY and COUNTY of DENVER, COLORADO

STATE OF COLORADO
DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
FORM 10-1206
REV. 1964

AS CONSTRUCTED					
NO REVISIONS	REVISED 7-21-87	NOT			

FED. ROAD DESIGN	SYMBOL	PROJ. NO.	SHEET NO.	SHEET TOTAL
		IR 25-2(191)	1/9	242

REVISIONS		
B-1	5-29-87 Revised Fy. Hgt.	JAB

GENERAL NOTES

ALL WORK SHALL BE DONE ACCORDING TO THE STANDARD SPECIFICATIONS OF THE DIVISION OF HIGHWAYS, STATE OF COLORADO, APPLICABLE TO THE PROJECT.

STRUCTURE EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH STANDARD M-206-1.

EXPANSION JOINT MATERIAL SHALL MEET AASHTO SPECIFICATION M-213.

ALL STRUCTURAL STEEL SHALL BE AASHTO M-183 (ASTM A-36) UNLESS OTHERWISE NOTED.

CLASS 1 FINISH, FOLLOWED BY APPLICATION OF A COLORED ACRYLIC COATING WILL BE REQUIRED ON ALL EXPOSED CONCRETE AND DOWN TO 1'-0" BELOW GROUND LINE. REQUIREMENTS FOR COATING ARE GIVEN IN REVISION OF SECTION 601, STRUCTURAL CONCRETE (COATING).

ALL EXTERIOR CONCRETE CORNERS SHALL BE CONSTRUCTED WITH 3/4" CHAMFERS, UNLESS OTHERWISE NOTED.

GRADE 60 REINFORCING STEEL IS REQUIRED FOR #4 BARS AND LARGER. ALL REINFORCING STEEL SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE.

THE FOLLOWING TABLE GIVES THE MINIMUM LAP SPLICE LENGTH FOR REINFORCING BARS:

BAR SIZE	#4	#5	#6	#7	#8	#9	#10	#11
SPLICE LENGTH FOR CLASS A CONCRETE	1'-0"	1'-3"	1'-8"	2'-3"	3'-0"	3'-10"	4'-10"	5'-11"

ANY SPLICES NOT SHOWN SHALL BE APPROVED BY THE ENGINEER.

APPLIED WIND LOADS AND EARTHQUAKE LOADS WERE NOT CONSIDERED IN ANALYZING THE STRUCTURE FOR STABILITY DURING THE CONSTRUCTION STAGES.

E.F. = EACH FACE
F.F. = FAR FACE
N.F. = NEAR FACE
T.F. = TOP FACE
B.F. = BOTTOM FACE

THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE TO THEM.

DESIGN DATA

CURRENT AASHTO SPECIFICATIONS, EXCEPT AS NOTED:

LIVE LOAD: AASHTO HS-20-44 AND INTERSTATE ALTERNATE
DEAD LOAD: EARTH - 120 LBS PER CU FT 2' SURCHARGE (LIVE LOAD)
EQUIVALENT FLUID PRESSURE (DESIGN): SEE DETAILS

REINFORCED CONCRETE:

CLASS A CONCRETE: FC = 1,200 PSI, N = 9

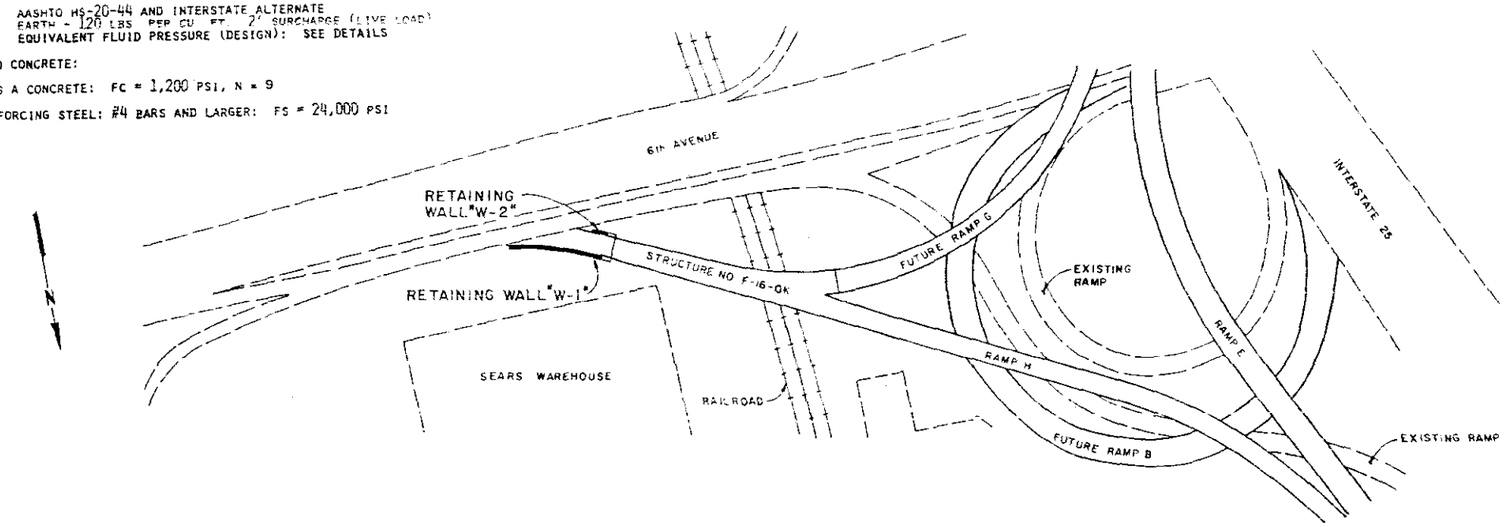
REINFORCING STEEL: #4 BARS AND LARGER: FS = 24,000 PSI

SUMMARY OF QUANTITIES

ITEM	DESCRIPTION	UNIT	WALL "W-1"	WALL "W-2"		TOTALS
206	Structure Excavation	Cu. Yd.	453	—		453
206	Structure Backfill (Class 1)	Cu. Yd.	924	24		948
206	Filter Material (Class B)	Cu. Yd.	40	1		41
502	Steel Piling (HP10x42)	Lin. Ft.	~~860~~ 774			~~860~~ 774
502	Drive [illegible]	Lin. Ft.	~~129~~ 0			~~129~~ 0
513	Drain Pipe (3 Inch)	Lin. Ft.	9	~~45~~		~~13~~
518	Water Stop (6 Inch)	Lin. Ft.	9	~~45~~		~~13~~
601	Concrete Class A (Wall)	Cu. Yd.	~~154~~ 165	9		~~163~~ 173
602	Reinforcing Steel (Epoxy Coated)	Lb.	26,015	950		26,965
606	Bridge Rail Type 4	Lin. Ft.	130	20		150

[1] Furnished by the State and Available at the project site. (Size HP 14x89)

INDEX OF DRAWINGS



INITIAL	DESIGNED BY	CHECKED BY	DATE
A	BAA	JAB	11-86
B	JAB	RSP	5-87
C			11-87

12-4	6-87		
	6-87		
	6-87		

REGISTERED PROFESSIONAL ENGINEER 14179 STATE OF COLORADO

Reviewed

BRIDGE ENGINEER DATE

De Leuw, Cather & Company Denver, CO

DIVISION OF HIGHWAYS

GENERAL INFORMATION
SUMMARY OF QUANTITIES

RETAINING WALLS

Near Denver Sec. 27 T4S R68W

Designer B. Arrighi
Detailer R. Panning
Structure Numbers

Drawing Number B-1 of 7 Drawings

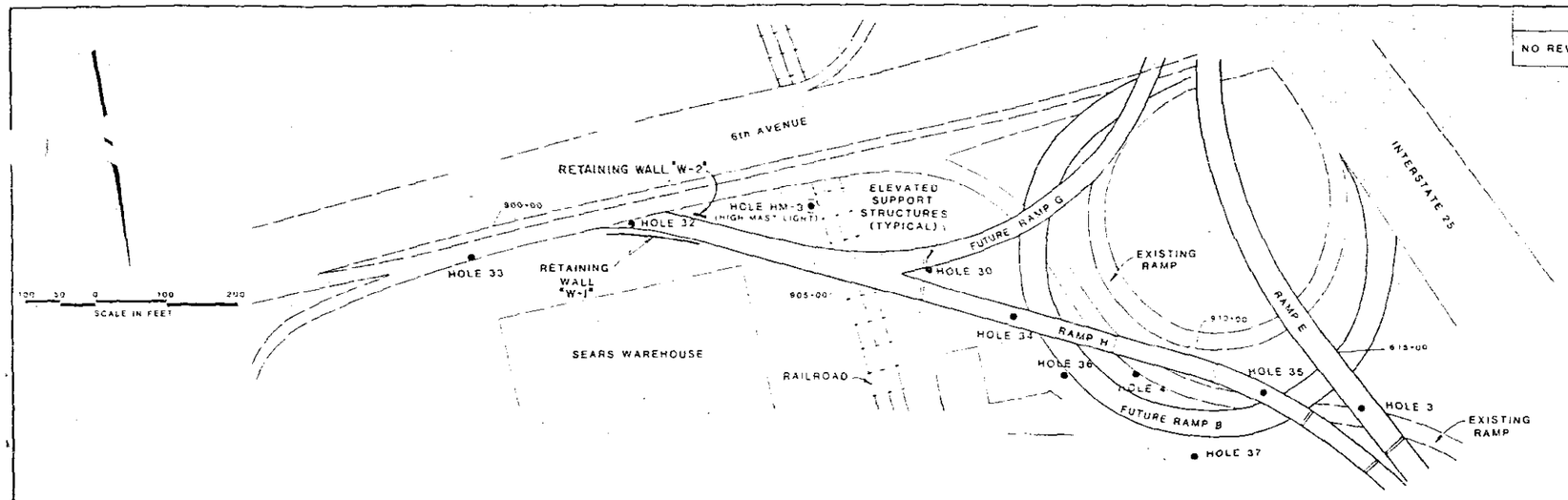
Revision Dates (Preliminary Stage Only)

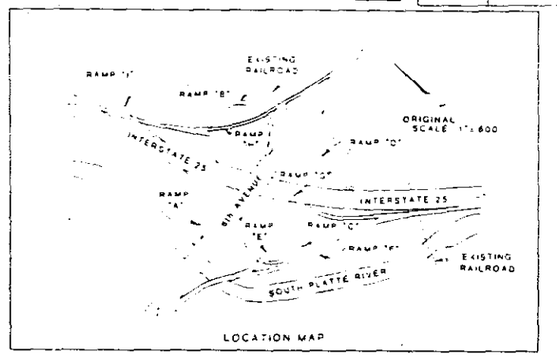
AS CONSTRUCTED

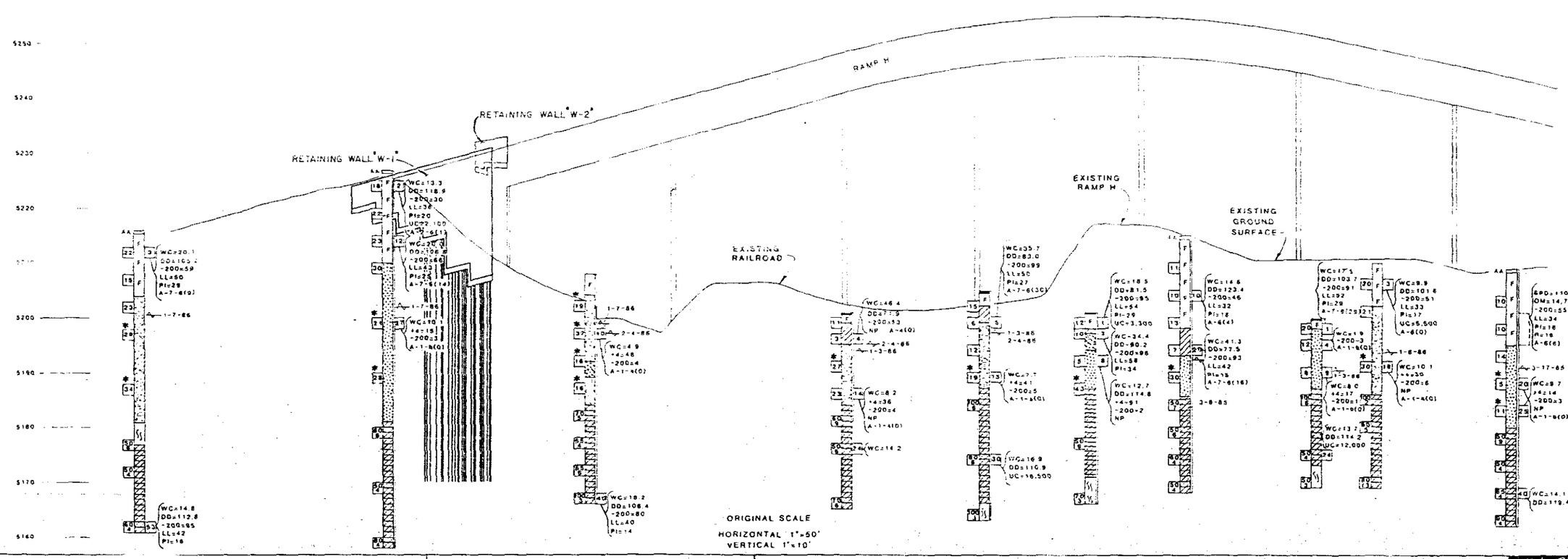
NO REVISIONS 7-21-89 REVISED [ ] VOID [ ]

FED. ROAD REG. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR25-2(191)	120	242

REVISIONS







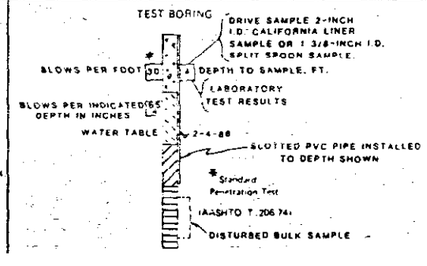
SUMMARY OF TEST RESULTS

Hole No.	Depth	Classification: Group Symbol & Name	Classification: AASHTO	Grading Analysis: Percent Gravel	Coarse Sand	Fine Sand	Silt and Clay	Atterberg Limits: Liquid Limit %	Plastic Limit %	Plasticity Index	Loose Dry Density, pcf	Loss on Wash %	Unconfined Compressive Strength Q_u T.S.F.	Triaxial Shear Strength: ϕ	C PCF	Dia. of Sample Inches

TYPE OF MATERIAL

- TOPSOIL
- AA ASPHALT
- FILL, GRAVELLY SAND TO SANDY CLAY, MOIST, BROWN, SCATTERED WOOD AND BRICK IN HOLES 33 AND 35.
- SAND (SP) CLEAN TO SLIGHTLY SILTY, LOOSE TO MEDIUM DENSE, MOIST TO WET, BROWN.
- SAND (SC-SM) CLAYEY TO SILTY, MEDIUM DENSE, MOIST, BROWN.
- SAND AND GRAVEL (SP-GP) CLEAN TO SILTY, MEDIUM DENSE TO DENSE, MOIST TO WET, BROWN.
- CLAY (CL) SLIGHTLY SILTY TO SILTY, MEDIUM TO STIFF, MOIST, BROWN
- CLAYSTONE BEDROCK, HARD TO VERY HARD, MOIST, BROWN TO BLUE-GRAY.
- SANDSTONE BEDROCK, VERY HARD, MOIST, BROWN TO BLUE-GRAY

LEGEND



LABORATORY TEST RESULTS:

WC=MOISTURE CONTENT,%
DD=DRY DENSITY, pcf
+4=PERCENTAGE RETAINED ON NO. 4 SIEVE
-200=% PASSING NO. 200 SIEVE
LL=LIQUID LIMIT, %
PI=PLASTICITY INDEX, %
NP=NON-PLASTIC
UC=UNCONFINED COMPRESSIVE STRENGTH, psf
SPD=MAXIMUM STANDARD PROCTOR DENSITY, pcf
OM=OPTIMUM MOISTURE CONTENT, %
R=HVEEM STABILOMETER RESISTANCE VALUE
A-1-b(0)=AASHTO CLASSIFICATION (GROUP INDEX)

○ HIGH MAST LIGHTING

STRUCTURE NO

DIVISION OF HIGHWAYS

CHEN & ASSOCIATES, INC.

ENGINEERING GEOLOGY

RAMP H

6th AVENUE/INTERSTATE 25 INTERCHANGE

Geologist
Drawn by A.S.
Checked by R.J.T.
Date February, 1986

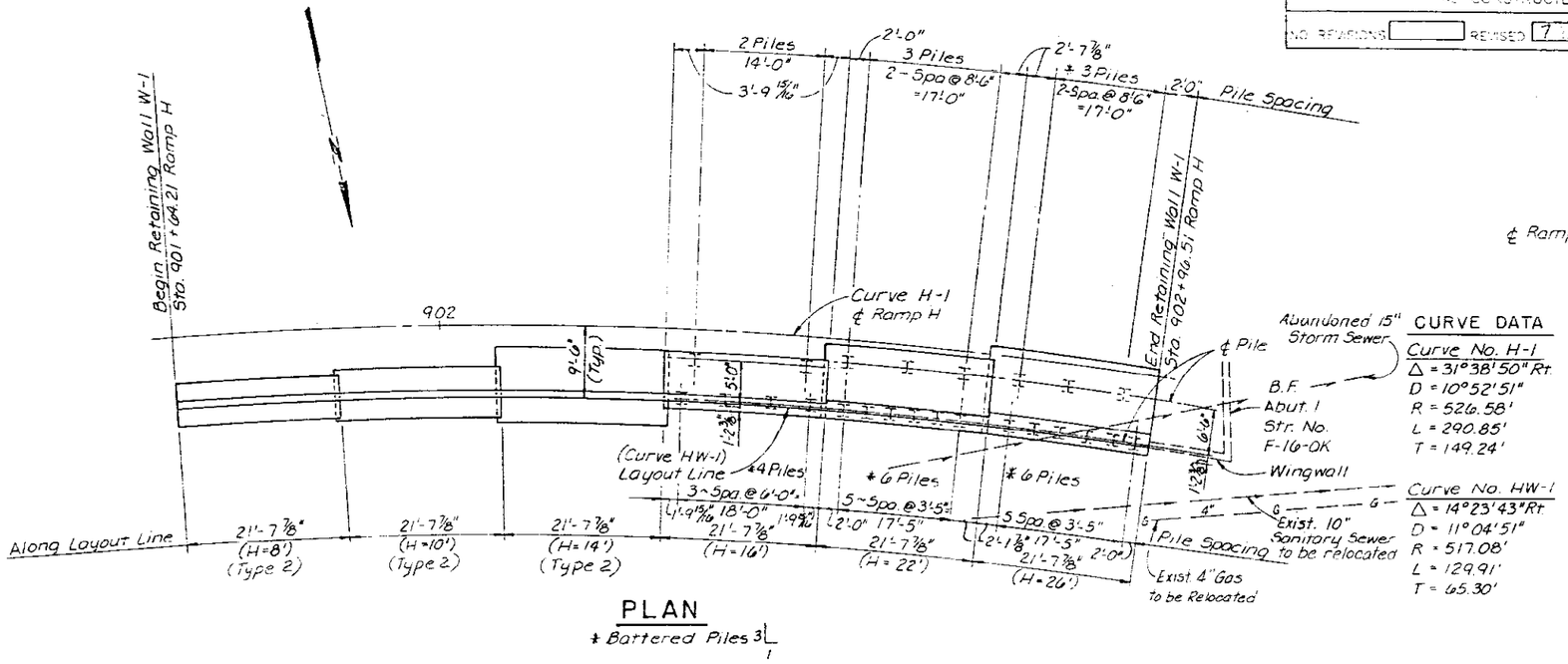
STATE OF COLORADO
DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
APPROVED
FEB. 1984

AS CONSTRUCTED					
NO. REVISIONS	REVISED	DATE	NO.		

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	50	IR 25-2(191)	121	242

REVISIONS			

INITIAL	DATE	
DESIGNED BY	BAA	11-86
DRAWN BY	BAA	11-86
CHECKED BY	PSP	11-86



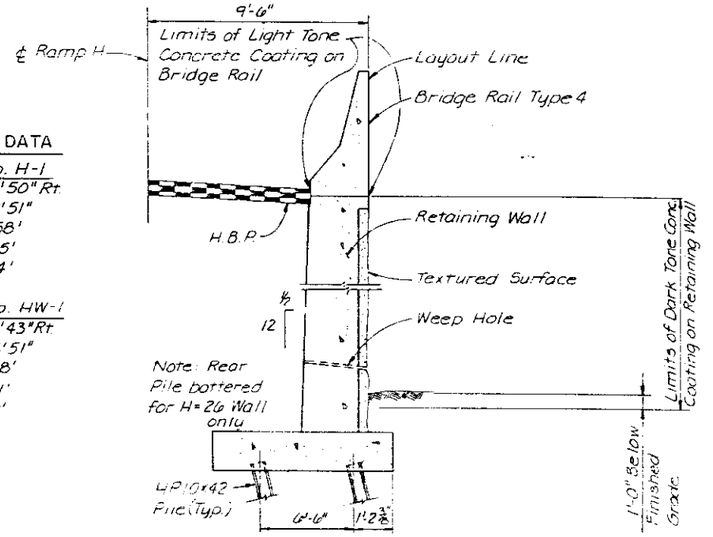
PLAN

+ Battered Piles

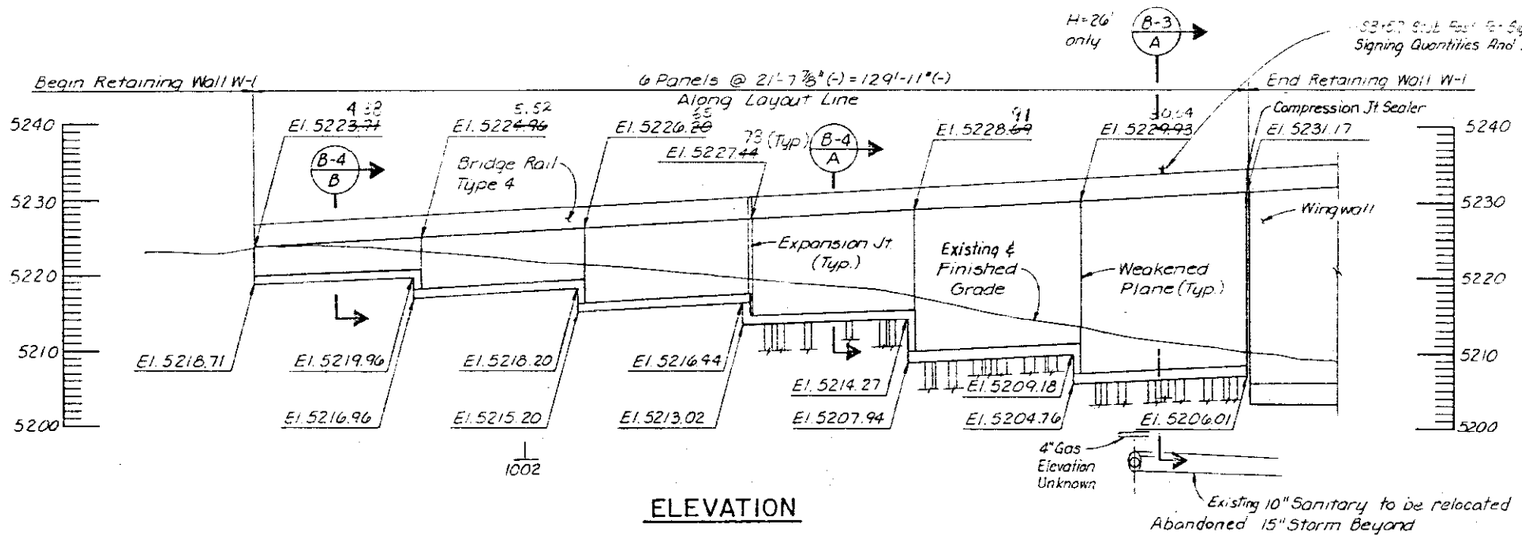
CURVE DATA

Curve No. H-1
Δ = 31°38'50" Rt.
D = 10°52'51"
R = 526.58'
L = 290.85'
T = 149.24'

Curve No. HW-1
Δ = 14°23'43" Rt.
D = 11°04'51"
R = 517.08'
L = 129.91'
T = 65.30'



SECTION B-3 / A



ELEVATION

NOTES:

1. For Bridge Rail Type 4 Details, See Dwg. No. B-50.
2. See Dwg. No. B-7 For Additional Details.
3. Utility Locations are Approximate. See Utility Plans and Sections for Location and Elevation.
4. See Dwg. No. B-5 for Size and Reinforcing for Retaining Walls on Piles.
5. All piles are end bearing, size HP 10×42, estimated tip elevation 5170.00.
6. See Dwg. No. B-6 for Size and Reinforcing for H=8', 10', & 14' Retaining Walls.

De Leuw, Cather & Company — Denver, CO

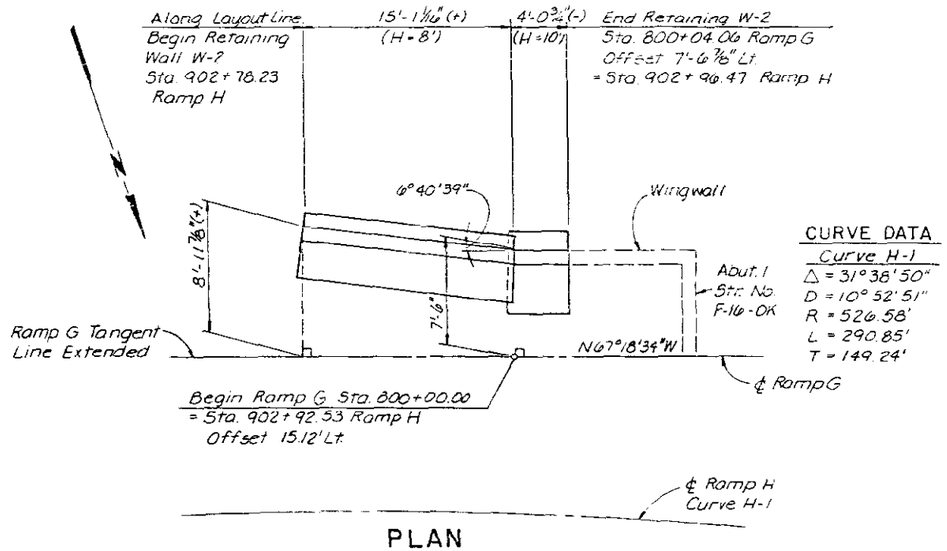
DIVISION OF HIGHWAYS

GENERAL LAYOUT RETAINING WALL "W-1"

STA. 901+64.21 TO STA. 902+96.51 RAMP H

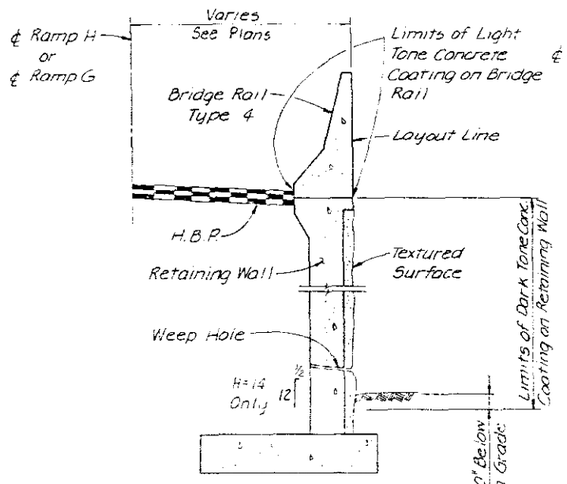
Designer B. Arrighi		Structure Numbers	
Detailer R. Panning			
Drawing Number 3-3	of 7	Drawings	

Revision Dates (Preliminary Stage Only)

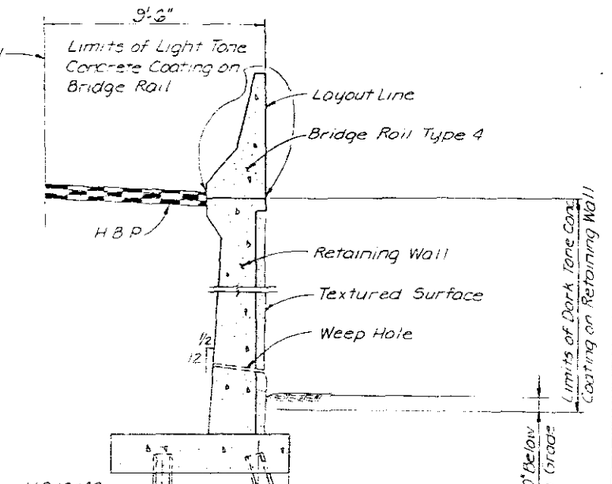


CURVE DATA
Curve H-1
△ = 31°38'50"
D = 10°52'51"
R = 526.58'
L = 290.85'
T = 149.24'

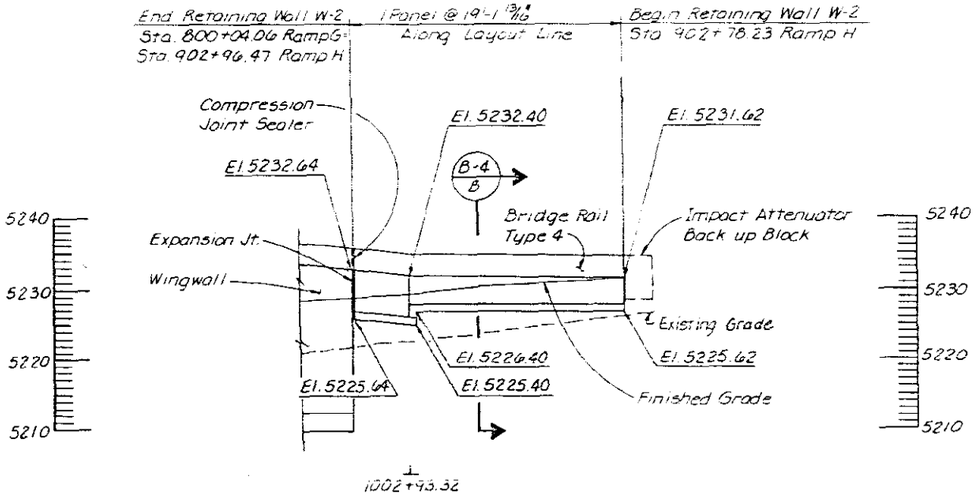
PLAN



SECTION B-4 / B



SECTION B-4 / A



ELEVATION
(Looking From South Side)

NOTES:
1. For Bridge Rail Type 4 Details, See Dwg. No. B-50
2. See Dwg. No. B-7 For Additional Details
3. Utility Locations are Approximate. See Utility Plans and Sections for Location and Elevation.
4. See Dwg. No. B-6 for Size and Reinforcing

INITIAL	DATE
DESIGNED BY B.A.A.	11/96
CHECKED BY J.A.B.	5/97
DETAILED BY R.C.P.	11/96
CHECKED BY	

AS CONSTRUCTED				
NO. REVISIONS	DATE	BY	NO.	DATE

REVISIONS			

REGION NO.	DIVISION	PROJECT NO.	SHEET NO.	SHEET TOTALS
1	0101	IR 25-2(191)	122	242

De Leuw, Cather & Company — Denver, CO

DIVISION OF HIGHWAYS

GENERAL LAYOUT
RETAINING WALL W-2
STA. 902+78.23 RAMP H TO
STA. 902+96.47 = STA. 800+04.06
RAMP H RAMP G

Designer B. Arrighi	Structure Numbers
Detailer R. Fanning	
Drawing Number B-4 of 7 Drawings	

Revision Dates (Preliminary Stage Only)

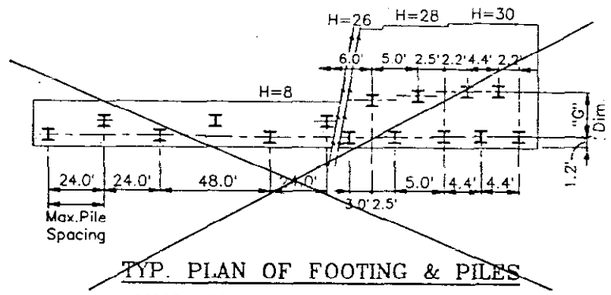
OF COLORADO
DEPARTMENT OF HIGHWAYS
SION OF HIGHWAYS
H, FORM NO. 117
OCT. 1983

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJECT NUMBER	SHEET NO. / TOTAL SHTS.
NO REVISIONS 7-21-89	REVISED	VOID	VIII	COLO.	IR25-2(191)	123 242

REVISIONS			

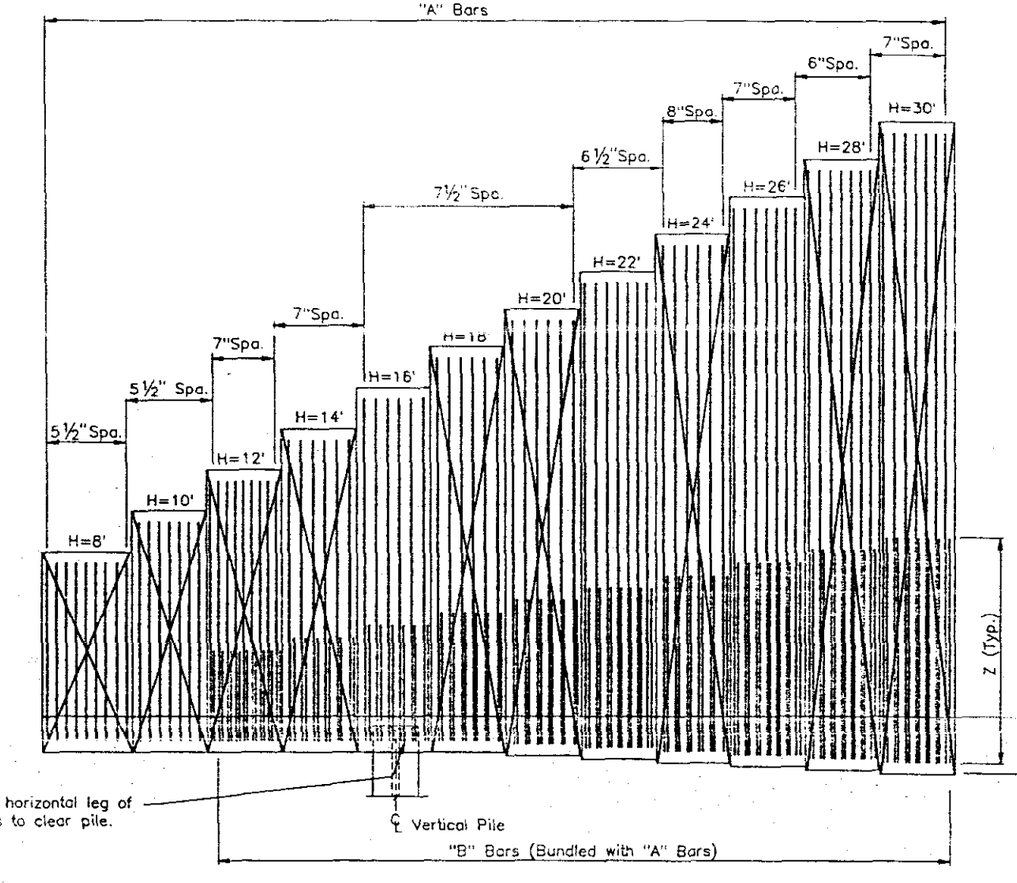
DESIGN H (ft.)	8	10	12	14	16	18	20	22	24	26	28	30
W	4'-9"	5'-6"	6'-2"	6'-10"	7'-7"	8'-4"	9'-2"	9'-10"	10'-5"	11'-5"	12'-5"	13'-2"
T	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-2"	1'-2"	1'-6"	1'-6"	1'-10"	2'-0"
X	1'-0"	2'-2"	2'-4"	2'-6"	2'-10"	3'-2"	3'-4"	3'-6"	3'-8"	3'-10"	4'-0"	4'-1"
Y			3'-8"	6'-3"	7'-1"	4'-5"	5'-4"	9'-6"	6'-4"	11'-1"	7'-3"	7'-9"
Z			8'-0"	10'-3"	6'-3"	5'-5"	6'-2"	8'-7"	7'-1"	9'-11"	9'-7"	10'-5"
A & C BARS	#4@5 1/2"	#4@5 1/2"		#4@7"	#5@7 1/2"			#6@6 1/2"		#7@7"		
B BARS	#4 @ 1'-6"	#4 @ 1'-6"	#4 @ 7"	#6@7"	#7 @ 7½"	#6 @ 7½"	#6 @ 7½"	#9@6½"	#7 @ 8"	#11@7"	#7 @ 6"	#8 @ 7"
D BARS	#4@5 1/2"			#5@7"	#7@7 1/2"			#9@6 1/2"		#10@7"		
As req'd. on general layout C	1.80'	2.50'	1.95'	4.00'	5.00'	2.76'	3.13'	6.50'	3.74'	6.50'	4.48'	4.72'
MAXIMUM PILE SPACING *	24.00'	16.80'	12.60'	9.70'	7.70'	6.20'	5.00'	4.10'	3.50	3.00'	2.50'	2.20'
MAX. PILE LOAD (TONS)	43.0	43.0	1.30	44.0	47.0	2.30	2.62	43.0	3.40	57.0	4.10	4.60
CONCRETE Cu.Yds./Lin.Ft.	0.472	0.574	0.673	0.771	1.188	0.980	1.194	1.962	1.708	2.882	2.310	2.642
WEIGHT OF REIN. Lbs./Lin.Ft.	46.2	53.0	66.3	81.9	103	146	163	197	232	278	337	395
S					1'-5"			1'-9"		2'-2"		
V					1'-6 1/2"			1'-11 1/2"		2'-5 1/2"		
R					5'-0 1/2"			6'-10 1/2"		7'-11 1/2"		

* SEE RETAINING WALL PLANS FOR ACTUAL PILE SPACING

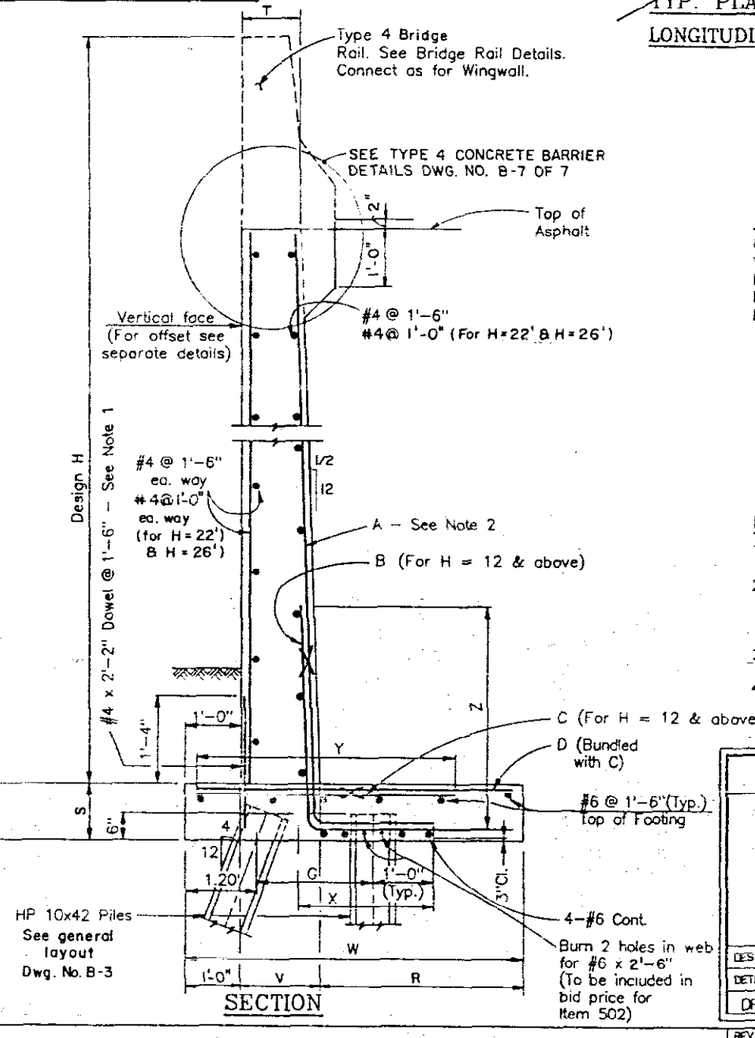


TYP. PLAN OF FOOTING & PILES

LONGITUDINAL DIMENSIONS ARE MAX.



ELEVATION



SECTION

DESIGN DATA

Current AASHTO Specification.
Working Stress Design
Reinforcing Steel: f_s = 24,000 psi
Reinforced Concrete: f_c = 1200 psi
Loadings:
Live Load = 10 Kips on Rail or 2' Surcharge
Earth = 36 pcf fluid equiv.
120 pcf dry weight.
Coeff. of friction = 0.70
~~2.7:1 allowed for U=1'-6" min.~~
~~2.0:1 allowed for U=2'-0" min.~~
~~1.7:1 allowed or 2' Live Load surcharge~~ or Bridge Rail mounted on wall for U=3'-0" min.
HP 10x42 Steel Piles=12,000 psi allowable load at tip
7 Kips allowable horizontal resistance

NOTES

1. #4 x 2'-2" Dowels may be placed after footing is poured but before initial set.
2. Bar "A" may be spliced once each bar (optional). Any increased quantity of reinforcing will be at the contractor's expense.
3. Design H is actual wall height plus three feet of barrier height rounded up to nearest even foot.
4. Backface wall batter is calculated for actual wall height (Dimension "V").

DIVISION OF HIGHWAYS

RETAINING WALL DETAILS

DESIGNER B. Arrighi	STRUCTURE NUMBERS	
DETAILER R. Panning		
DRAWING NUMBER B-5	OF 7	DRAWINGS

REVISION DATES	(PRELIMINARY STAGE ONLY)

INITIAL	DATE
DESIGNED BY BAA	6-87
CHECKED BY JAB	5-87
DETAILED BY KSP	11-86

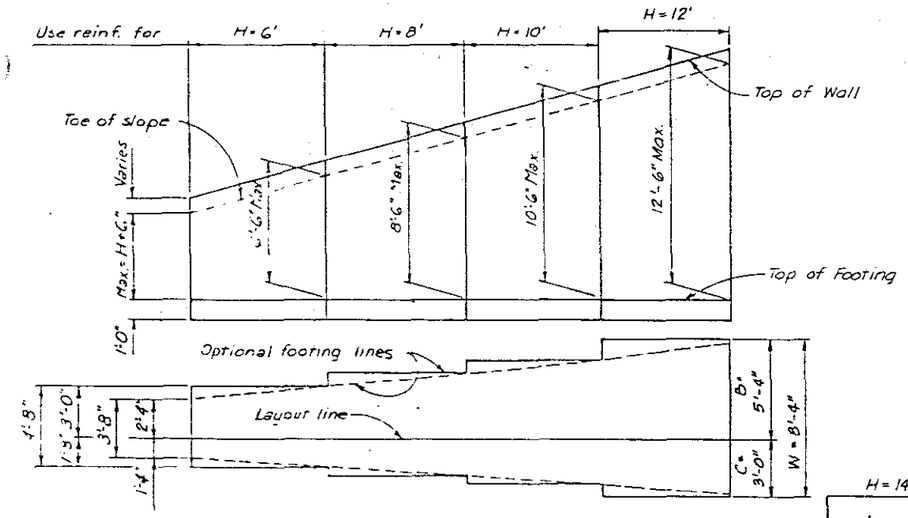
MD NUMBER 06/05/86 11:32:17 [LOAD/DRAWSTDS/MSTDS] RWD2

RWD2

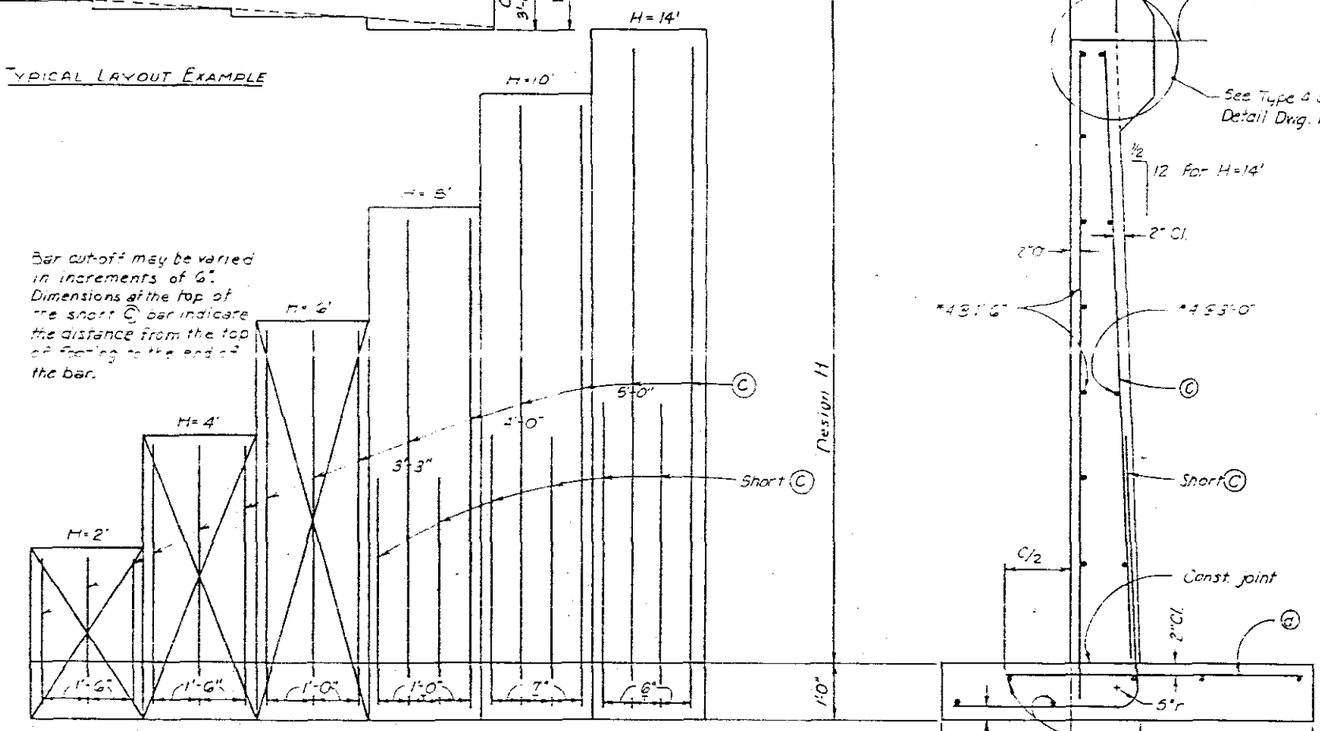
AS CONSTRUCTED			
NO REVISIONS	[illegible]	REVISED	VOID

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	IR25-2(191)	124	242

REVISIONS			



TYPICAL LAYOUT EXAMPLE



ELEVATION

DESIGN DATA - REINFORCING STEEL - DIMENSIONS - Type 2 Retaining Walls							
H	2'	4'	6'	8'	10'	12'	14'
C	1'-0"	1'-4"	1'-8"	2'-4"	2'-8"	3'-0"	3'-4"
B	1'-8"	2'-4"	3'-0"	3'-4"	4'-0"	5'-4"	6'-9"
W	2'-8"	3'-8"	4'-8"	5'-8"	6'-8"	8'-4"	10'-1"
(S) & (L) bars	#5@1'-0"	#5@1'-0"	#5@1'-0"	#6@1'-0"	#6@7"	#7@6"	#6@6"
Reinf. Lbs/LF		20	26	35	45	162	162
Conc. Cu Yd/LF		0.259	0.358	0.457	0.554	0.679	1.04
T	—	—	—	10"	10"	—	1'-0"
A	—	—	—	10"	10"	—	1'-5"

TYPICAL SECTION

NOTES:

BACKFACE WALL BATTER IS CALCULATED FOR ACTUAL WALL HEIGHT (DIMENSION "A").

DESIGN H IS ACTUAL WALL HEIGHT PLUS THREE FEET OF BARRIER HEIGHT ROUNDED UP TO NEAREST EVEN FOOT.

DESIGN H MAY BE EXCEEDED BY 6" BEFORE GOING TO THE NEXT SIZE.

SPECIAL FOOTING DESIGN IS REQUIRED WHEN FOUNDATION MATERIAL IS INCAPABLE OF SUPPORTING TOE PRESSURE LOAD.

FOR DESIGN AND DETAILS NOT SHOWN, SEE BRIDGE STANDARD - T02.

DESIGN DATA

f'_c = 1200 psi
f_s = 24,000 psi
n = 9

EQUIVALENT FLUID PRESSURE = 36 pcf
MAXIMUM TOE PRESSURE = 1 TON/SQ. FT.

DIVISION OF HIGHWAYS

RETAINING WALL DETAILS

TYPE 2

Designer	B. Arrighi	Structure Numbers	
Detailer	R. Panning		
Drawing Number B-	6	of	7 Drawings

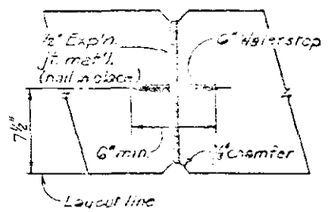
CHECKED BY: JAS 2/6/
DETAILED BY: RPP 2/6/

AS BUILT				
CORRECTIONS 7-2-85		VOID		

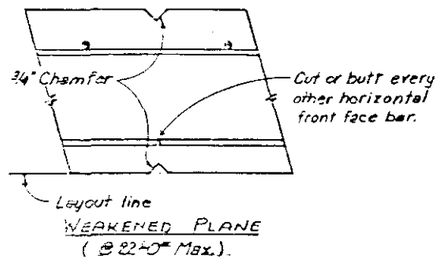
FEDERAL ROAD PROJECT NO.	DIVISION NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
XIII	FED.AID NO.	IR-25-2(191	125	242

REVISIONS			

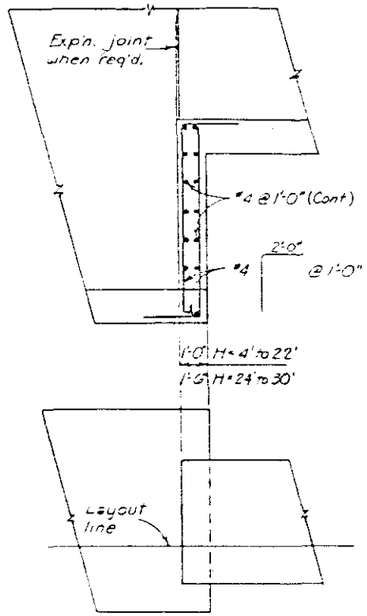
BRIDGE STANDARD 102



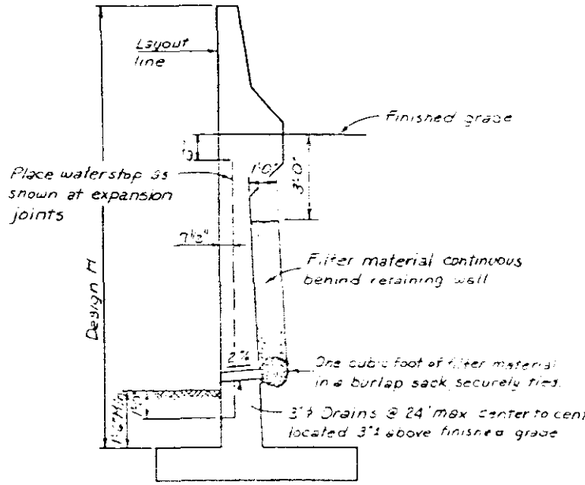
EXPANSION JOINT



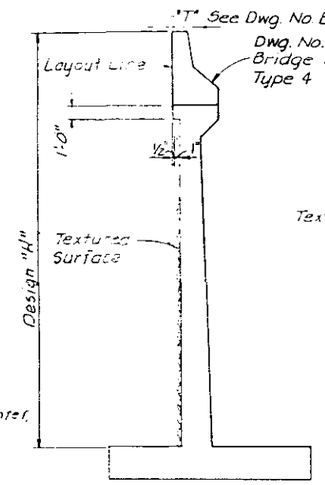
WEAKENED PLANE
(@ 22'-0" Max.).



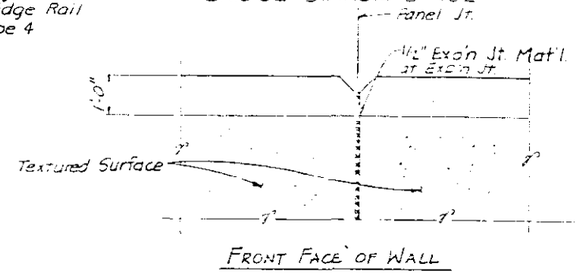
FOOTING STEP



DESIGN AND DRAINAGE

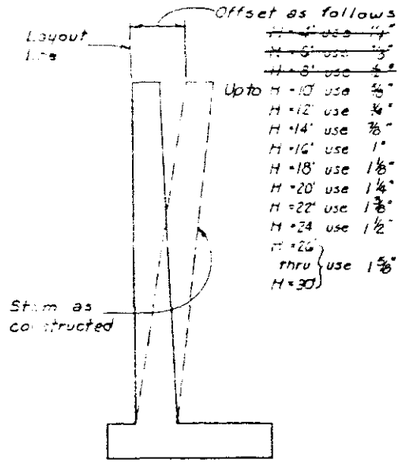


TEXTURED RUSTICATION

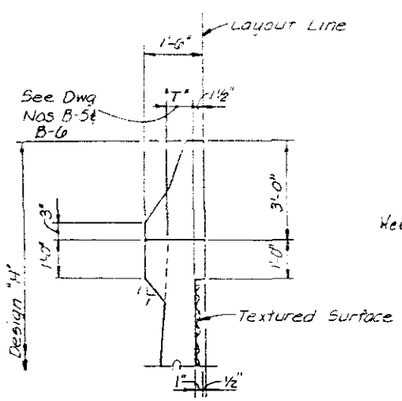


FRONT FACE OF WALL

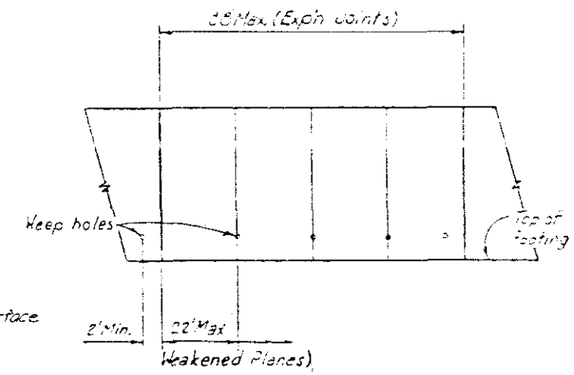
Note:
Textured Surface shall conform to the surface as Detailed Below, or As Approved By The Engineer



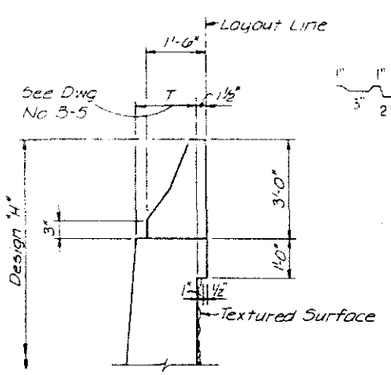
APPROX. WALL OFFSETS



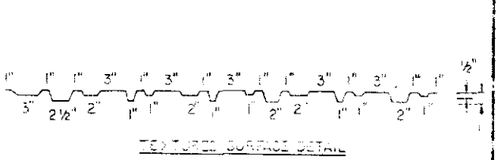
Type 4 Concrete Barrier
H = 8, 10, 14 Type 2
H = 16, 22



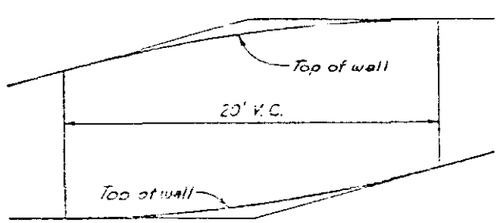
WALL EXPANSION JOINTS AND WEAKENED PLANES



Type 4 Concrete Barrier
H = 26



TEXTURE SURFACE DETAIL



20' V.C. AT TOP OF WALL SLOPE CHANGE

DIVISION OF HIGHWAYS

RETAINING WALL DETAILS
MISCELLANEOUS

Designed R. [illegible]		Structural	
Detailed J. B. [illegible]		Materials	
Drawing No. 8 - 7	of 7	Drawings	