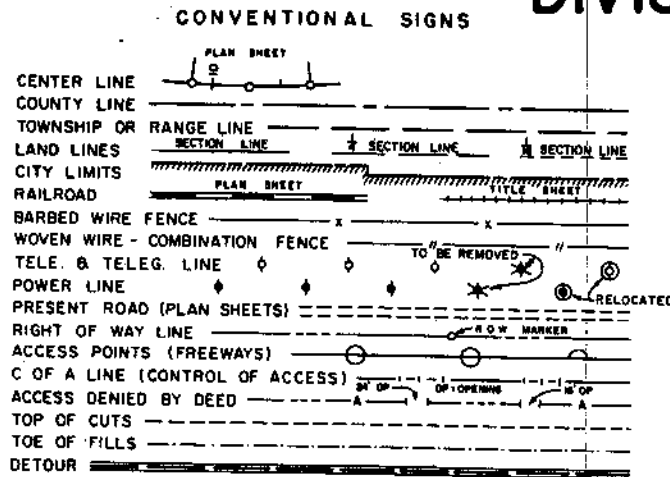


AS CONSTRUCTED
 REVISED DATE July 14, 1972

STATE DEPARTMENT OF HIGHWAYS DIVISION OF HIGHWAYS—STATE OF COLORADO

R-1	REV. 6-26-71 G.S.	FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.
R-2	REV. 6-3-71 G.S.	5	COLORADO	U 006-6(2)	1
R-3	REV. 6-7-71 G.S.				



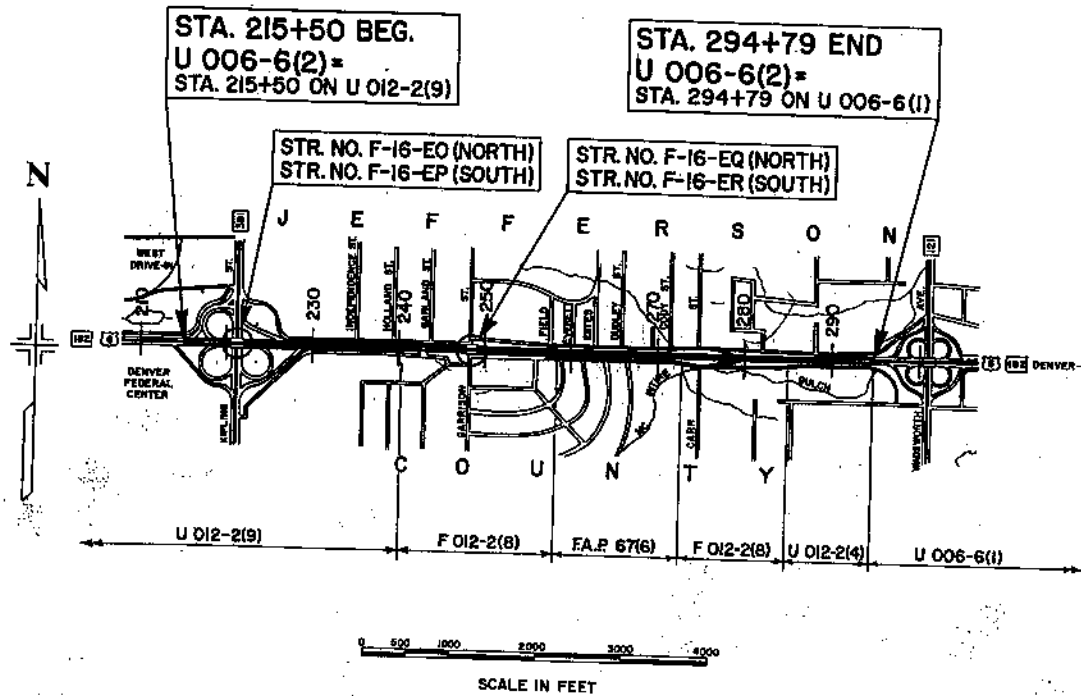
PLAN AND PROFILE OF PROPOSED FEDERAL AID PROJECT NO. U 006-6(2) STATE HIGHWAY NO. 6 JEFFERSON COUNTY

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
 GROSS LENGTH OF PROJECT } 7,927.23 FT. = 1.501 MILES
 NET LENGTH OF PROJECT }

CONTRACTOR: THOMASSON CONCRETE COMPANY
 PROJECT ENGINEER: J. T. UNGEFUG
 DATE COMPLETED: July 14, 1972

INDEX OF SHEETS

SHEET NO. 1	TITLE PAGE AND SKETCH MAP	
2	TYPICAL SECTIONS AND DETAIL OF 8" BARRIER CURB	
3	GENERAL NOTES, SUMMARY OF EARTHWORK, TABULATION OF LENGTH & DESIGN AND TRAFFIC MOVEMENT COUNT	
4-5	SUMMARY OF APPROXIMATE QUANTITIES	
6	TYPICAL RAMP DETAILS, DETAILS OF INLET CAP, HEADWALL, REMOVAL AND MEDIAN BARRIER	
7	TABULATION OF SUBBASE AND SURFACING, CURBS AND GUTTERS, STORM SEWERS, REMOVAL OF CURBS & GUTTERS AND MANHOLE & INLET ADJUSTMENTS	
8	CURB & GUTTER TRANSITIONS, DETAIL OF MEDIAN INLET ADJUSTMENT, TABULATION OF DELINEATORS AND FENCING, AND LIST OF REMOVALS	
9	DELETED	
10	LIST OF STRUCTURES	
11-28	DETAILS OF STR. NO. F-16-EO & EP KIPLING ST.	
29-40	DETAILS OF STR. NO. F-16-EQ & ER GARRISON ST.	
41-46	DRAINAGE, FENCING, AND UTILITIES	
47-52	ALIGNMENT PLAN, PROFILE, LIGHTING AND DELINEATORS	
53-71	SIGNING PLANS	
72-86	GROSS SECTIONS	
M-205-C	DITCH TYPES	7-23-68
M-206-AA	EXCAVATION AND BACKFILL FOR STRUCTURES	(2 SHEETS) 3-1-71
M-412-AA	CONCRETE PAVEMENT JOINTS	4-10-70
M-500-A	LETTERS AND FIGURES FOR STRUCTURE NUMBERS	7-1-65
M-601-L	HEADWALL, INTERCEPTING HEADWALL AND CULVERT OUTLET PAVING	5-24-71
M-603-M	METAL CULVERT PIPE - H-20 LOADING	2-11-71
M-603-RC	REINFORCED CONCRETE PIPE	5-1-71
M-604-AA	CONCRETE INLETS-TYPES 3 AND 3 DOUBLE	12-2-68
M-604-BA	INLET, TYPE C	5-24-71
M-604-D	STEPS FOR MANHOLES AND INLETS	7-23-68
M-604-E	MANHOLES	4-20-71
M-606-AB	GUARDRAIL, TYPE 3	(3 SHEETS) 11-26-70
M-607-B	CHAIN LINK FENCE	(2 SHEETS) 4-20-71
M-609-A	CURBS AND GUTTERS	5-7-71
M-612-A	MARKER POSTS AND BENCH MARKS	5-7-71
M-612-C	DELINEATORS	(2 SHEETS) 7-11-68
M-613-AA	HIGHWAY LIGHTING	4-9-71
M-614-A	TIMBER BARRICADES	4-23-69
M-614-IC	STANDARD CONSTRUCTION IDENTIFICATION SIGNS	(2 SHEETS) 9-25-70
M-614-TB	TRAFFIC SIGNING FOR HIGHWAY CONSTRUCTION	(3 SHEETS) 12-24-68
* M-601-A	SINGLE AND DOUBLE CONCRETE BOX CULVERTS	5-10-71
S-614-18A	TYPICAL POLE MOUNT SIGN INSTALLATION	1-14-71
S-614-19B	TYPICAL GROUND SIGN PLACEMENT	11-18-70
S-614-20B	CLASS I GROUND SIGN INSTALLATIONS	7-1-68
S-614-21B	CLASS II GROUND SIGN INSTALLATIONS	12-2-69
S-614-22C	TYPICAL MARKER ASSEMBLY INSTALLATIONS	12-11-70
S-614-23C	LAMINATED ALUMINUM PANELS AND POST SPACING	
S-614-26B	TABLE FOR CLASS III SIGNS	(2 SHEETS) 10-20-69
S-614-27B	BREAKAWAY SIGN SUPPORT DETAILS FOR GROUND SIGNS	(2 SHEETS) 12-9-68
S-614-27B	PEDESTALS, FOOTINGS AND SIGN ISLANDS FOR CLASS III SIGNS	
S-614-29A	TYPICAL PAVEMENT MARKINGS	(2 SHEETS) 5-16-69
S-614-31C	U.S. & COLORADO ROUTE MARKERS	12-1-70
S-614-32B	AUXILIARY MARKERS	11-18-70
	SHEET 71d DELETED	3-22-71



As Constructed No Revisions
 Sheets 15-28, 31-44, 47, 49-52
 and 59-71

SEE SPECIAL PROVISIONS FOR NOTICE TO BIDDERS

DIVISION OF HIGHWAYS

APPROVED: *[Signature]* DATE: 5-14-71
 CHIEF ENGINEER

DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____ DATE: _____
 DIVISION ENGINEER

SUBMITTED WITH THE APPROVAL OF:
[Signature]
 DISTRICT CONTRACTING ENGINEER

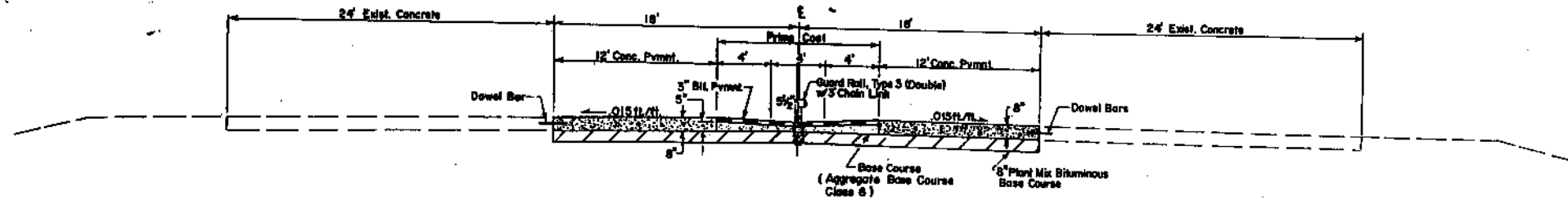
F-16-EP, ER median closure

AS CONSTRUCTED
REVISED DATE 7/11/72

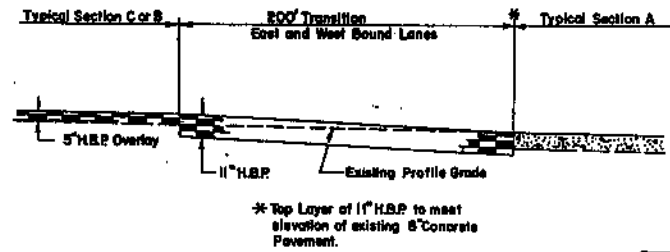
TYPICAL SECTIONS

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	U 008-6(2)	2	

SECTION A

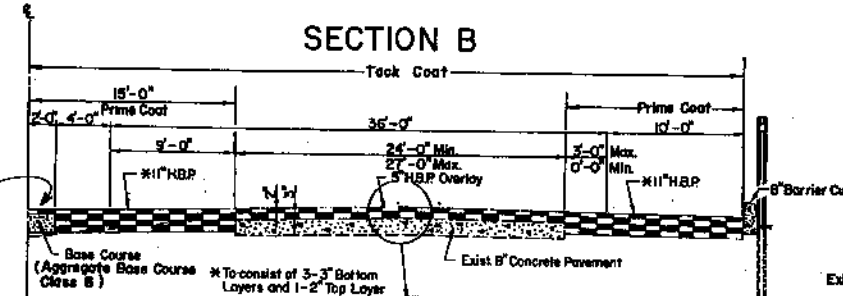


PROFILE TRANSITION
(TYPICAL SECTION C TO A & B TO A)

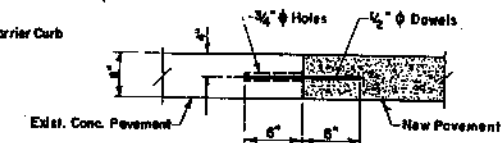


The depth and width of any side ditches shall be varied where necessary in order to provide proper drainage.

SECTION B

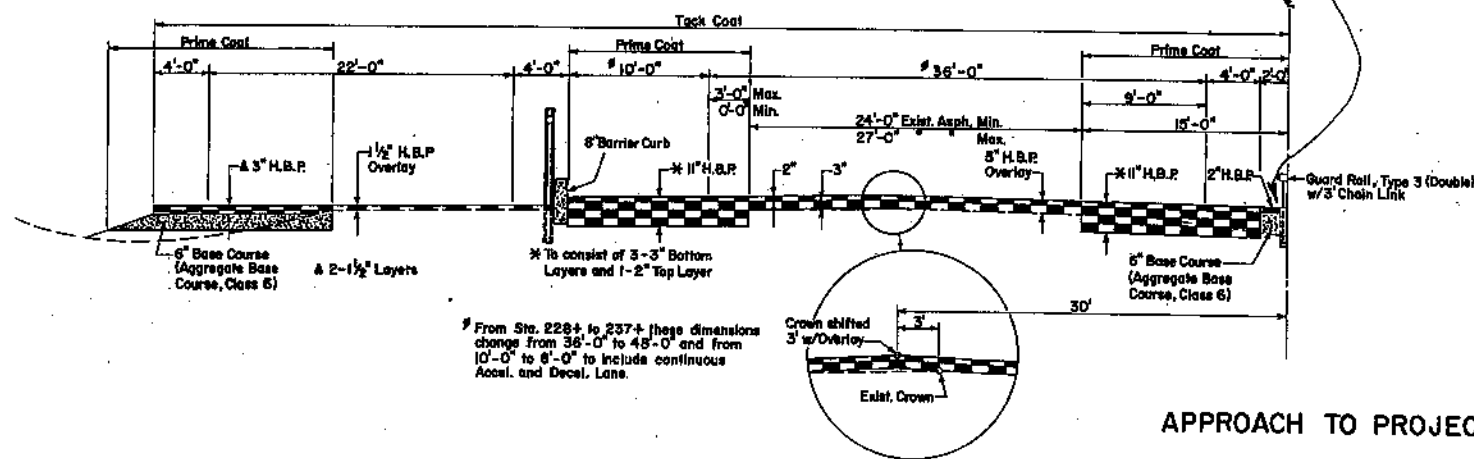


DETAIL OF DOWEL BARS



1/2" x 1'-0" Reinforcing at 5'-0" spacing. Cost of Bars, Grout and installation to be included in the Unit Price Bid for Concrete Pavement. Bars to be grouted in 3/4" holes in existing concrete. Grout to consist of two parts clean Sand and one part Cement.

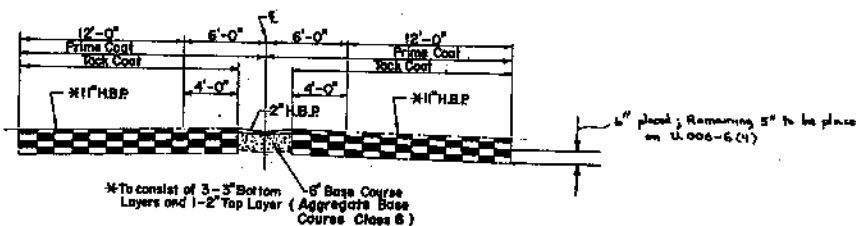
SECTION C



TABULATION OF TYPICAL SECTIONS

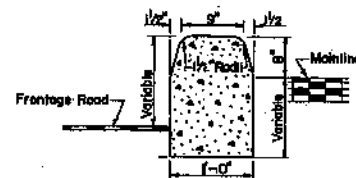
STATION	SIDE	SECTION	REMARKS
215+50 - 229+22	Rt.	A	
215+50 - 229+22	Lt.	A	
229+22 - 240+45	Rt.	B	
229+22 - 240+60	Lt.	C	INCLUDES PROFILE TRANSITIONS(2)
240+45 - 258+32	Rt.	A	
240+60 - 258+36	Lt.	A	
258+32 - 294+00	Rt.	B	
258+36 - 295+00	Lt.	C	INCLUDES PROFILE TRANSITION
210+50 - 215+50	Median	Approach to Project	

APPROACH TO PROJECT



NOTE: Profile grade for Section A is based on the profile grade of the median edge of the existing concrete pavement.
Profile grade for Sections B and C shall be the thickness of the overlay above the existing pavement. At locations where the existing concrete pavement is crowned the crown shall be retained. Where existing pavement is crowned, but is to be overlaid - shift crown 3 feet.

SPECIAL CURB DETAIL
CURB TYPE 2
(6' BARRIER)(SECTION B)



ALREADY CONSTRUCTED
REVISED DATE 7/14/72

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJECT NO.	SECTION NO.	TOTAL SHEETS
	COLORADO	11 006 112		

TABULATION OF LENGTH AND DESIGN DATA

STATION	ROADWAY	MAJOR STRUCTURES (WIDEN)
	LIN. FT.	LIN. FT.
218+50 BEGIN U 006-6(2) - 218+50 ON U 012-2(9)	564.50	170.00
221+44.50 BEGIN BRIDGE KIPLING ST. F-16-EO, F-16-EP 222+84.50 Bk. EQ. END BRIDGE 222+87.50 Ah.		
247+97.52 BEGIN BRIDGE GARRISON ST. F-16-EO, F-16-ER	2,510.13	131.66
249+29.18 Bk. EQ. END BRIDGE 249+28.06 Ah.		
294+79 END U 006-6(2) 294+79 BEGIN U 006-6(1)	4,550.94	
TOTAL		
SUMMARY	LIN. FT.	MILES
ROADWAY	7,625.57	1.444
MAJOR STRUCTURES	301.66	0.057
TOTAL NET & GROSS LENGTH	7,927.23	1.501
DESIGN DATA		
MAXIMUM DEGREE OF CURVE		TAN.
MAXIMUM GRADE		4.00%
MINIMUM S.S.D. (VERTICAL)		375'
MAXIMUM DESIGN SPEED		60 M.P.H.

SUMMARY OF EARTHWORK

	PLAN	FINAL
UNCLASSIFIED EXCAVATION (HAUL)		
From Roadway Cross Sections	8014 Cu. Yds.	
Ditch Excavation	15 Cu. Yds.	
TOTAL	8029 Cu. Yds.	8029 Cu. Yds. *
*EXCAVATION		
From Roadway Cross Sections	8014 Cu. Yds.	
Less Excess Excavation	5576 Cu. Yds.	
TOTAL	2438 Cu. Yds.	
*EMBANKMENT (NET)		
From Roadway Cross Sections	2216 Cu. Yds.	
TOTAL	2216 Cu. Yds.	
* EMBANKMENT X FACTOR (1.1) TOTAL	2438 Cu. Yds.	
COMPACTION (AASHTO T99)		
Base of Cuts and Fills	9097 Cu. Yds.	
EMBANKMENT (NET)	2216 Cu. Yds.	
TOTAL	11,313 Cu. Yds.	11,313 Cu. Yds. **

*For information Only.
* Excess Excavation to become property of Contractor and shall be disposed of by him.

** Contractor agreed to accept plan quantity.
Plan quantity verified by State Forces
as being reasonable & accurate (see BK#1, pg. 719)

GENERAL NOTES

This Project is to be constructed in conformity with the Standard Specifications applicable to this Project.

All quantities on preliminary plans are to be considered approximate only.

For preliminary plan quantities the following rates of application were used:

Prime Coat M.C. 70 at 0.40 gal. per sq. yd.
Bituminous Pavement at 110 lbs. per sq. yd. per thickness
Emulsified Asphalt (SS-H) Tack Coat at 0.10 gal. per sq. yd.

Rate of application and grade of asphaltic material shall be determined by the Engineer at the time of application.

During construction of this project, traffic will use present traveled roadway.

Water lines, gas lines, etc., as shown on Roadway Drainage plans are plotted from the best information available. The Contractor's attention is directed to paragraph 107.17 of the Standard Specifications concerning Utilities.

For preliminary plan quantities of Wetting, the following rates of application were used:

Embankment 40 gal. per cu. yd.
Subbase and Surfacing 15 gal. per ton

Any layer of Bituminous Paving that is to have succeeding layer placed thereon shall be completed full width before succeeding layer is placed.

Depth of moisture-density control for this Project shall be as follows:

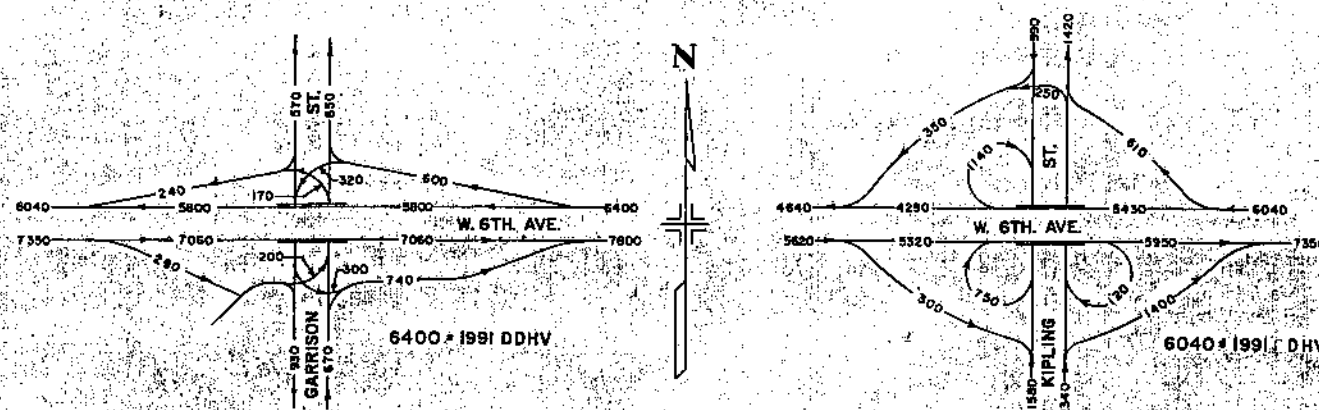
Full depth of all embankments
Bases of cuts and fills 6' Excavation required for compaction of bases of cuts and fills will be considered subsidiary to that operation and will not be paid for separately.

Guard Posts, Shrubs and Delimiters will be removed by State Forces.

It is estimated that 1570 hours of flagging for controlling traffic will be required for this Project.

Ski type device at least 30 feet in length shall be furnished with each bituminous paver equipped with an automatic control system.

TRAFFIC MOVEMENT COUNT



AS CONSTRUCTED
REVISED

SUMMARY OF APPROXIMATE QUANTITIES

PROJECT NO. 1006-802
DIVISION 3
COLORADO

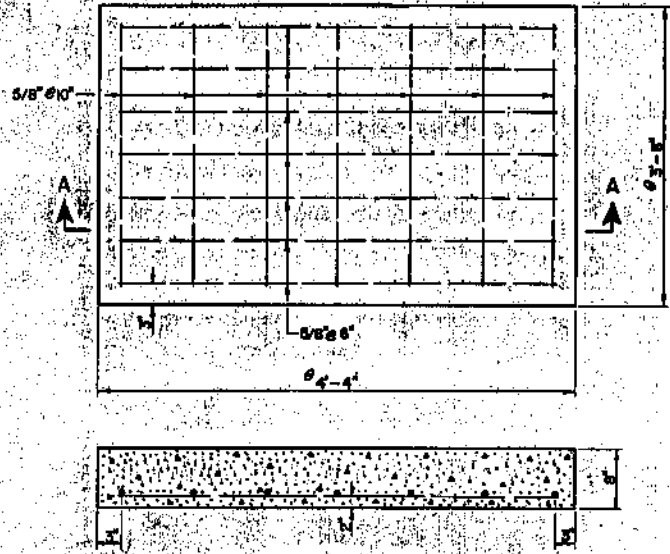
INDEX	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	ROADWAY	STR. NO. F-16-EO, EP KIPLING ST.	W.O. # 16596-E (FED. PART.)	W.O. # 16596-E (STATE EXPN)	STR. NO. F-16-EO, ER GARR. ST.	PROJECT TOTALS	REVISED PLAN TOTALS	FINAL TOTALS	Change
4-48	202	REMOVAL OF STRUCTURE	EACH	24					24	24	17	-7
4-11	202	REMOVAL OF HEADWALL	EACH	5					5	5	5	
4-12	202	REMOVAL OF CONCRETE DITCH LINING	LIN. FT.	9					9	9	9	
4-15	202	REMOVAL OF CONDUIT	LIN. FT.	408					408	408	381	-27
4-17	202	REMOVAL OF CURB & GUTTER	LIN. FT.	6,962					6,962	6,962	7,821	+859
4-18	202	REMOVAL OF CONCRETE PAVEMENT	SQ. YD.	80					80	80	95	+15
4-22	202	REMOVAL OF PORTIONS OF PRESENT STRUCTURE	EACH									
4-29	202	REMOVAL OF GROUND SIGN	EACH	56					56	56	56	
4-31	202	REMOVAL OF GUARD FENCE	LIN. FT.	533					533	533	510	-23
1-7	203	UNCLASSIFIED EXCAVATION (HAUL)	CU. YD.	8,100					8,100	8,100	8,029	-71
1-9	203	COMPACTION (AASHTO T-99)	CU. YD.	11,500					11,500	11,500	11,313	-187
1-11	205	STRUCTURE EXCAVATION	CU. YD.	859	165			75	1,090	1,090	1,066	-24
1-13	206	STRUCTURE BACKFILL (CLASS 2)	CU. YD.	364								
1-15	209	WETTING	M GAL.	520	130			26	520	520	508	-12
4-35	210	RESET MAILBOX STRUCTURE	EACH	16					16	16	265	+255
4-38	210	RESET GROUND SIGN	EACH	5					5	5	5	
4-40	210	RESET GUARD RAIL TYPE 3	LIN. FT.	250					250	250	275	+25
4-43	210	ADJUST STRUCTURE	EACH	10					10	10	10	
4-46	210	ADJUST MANHOLE	EACH	12					12	12	12	
1-17	301	PLANT MIX BITUMINOUS BASE (CLASS 6) (HAUL & ASPHALT)	TON	5,000					5,000	5,000	5,063.32	+63.32
1-19	304	AGGREGATE BASE COURSE (CLASS 6) (HAUL)	TON	4,300					4,300	4,300	5,541.57	+1,241.57
1-21	403	HOT BITUMINOUS PAVEMENT (PATCHING)	TON	60					60	60	13.07	+6.07
1-23	403	HOT BITUMINOUS PAVEMENT (GRADING EXHAUST & ASPHALT)	TON	29,500					29,500	29,500	27,532.38	-1,967.62
1-25	403	HOT BITUMINOUS PAVEMENT (GRADING EXHAUST & ASPHALT)	TON	60					60	60	13.07	+6.07
6-60	411	EMULSIFIED ASPHALT (SS-1H)	GAL.	16,300		126.5	96.2		16,300	16,300	16,300	
6-35	411	LIQUID ASPHALT (O) MATERIAL (MC-70)	GAL.	16,300		171	153		16,300	16,300	16,300	
3-25	412	CONCRETE PAVEMENT (8 INCH)	SQ. YD.	7,610					7,610	7,610	7,908	+298
3-27	412	CONCRETE PAVEMENT (10 INCH)	SQ. YD.	286					286	286	286	
7A-39	502	STEEL PILING CUTOFF (10 BP 42)	LIN. FT.	80					80	80	80	
3-32	507	CONCRETE SLOPE AND DITCH PAVING (REINFORCED)	CU. YD.									
1-27	507	BITUMINOUS SLOPE AND DITCH PAVING	TON	214					214	214	222.39	+8.39
1-29	509	STRUCTURAL STEEL	LB.									
1-31	509	STRUCTURAL STEEL (GALVANIZED)	LB.		2,209				2,209	2,209	2,209	
3-39	516	DAMP PROOFING (LINSEED OIL)	SQ. YD.		748				748	748	748	
1-33	601	CONCRETE CLASS A	CU. YD.		39				39	39	39	
1-34	601	CONCRETE CLASS A (MISCELLANEOUS)	CU. YD.		13				13	13	13	
1-37	601	CONCRETE CLASS D	CU. YD.									
1-39	602	REINFORCING STEEL	LB.		14,317				14,317	14,317	14,317	
5-46	603	18 INCH CORRUGATED STEEL PIPE	LIN. FT.	398	93,469				93,469	93,469	93,469	
5-49	604	INLET TYPE C (5 FOOT)	EACH	3					3	3	3	
5-49	604	INLET TYPE C (10 FOOT)	EACH	1					1	1	1	
5-48	604	INLET TYPE 3 (5 FOOT)	EACH	3					3	3	3	
5-48	604	INLET TYPE 3 (10 FOOT)	EACH	5					5	5	5	
5-21	604	MANHOLE SLAB BASE (5 FOOT)	EACH	1					1	1	1	
5-7	604	MANHOLE SLAB BASE (10 FOOT)	EACH	1					1	1	1	
4-43	604	INLET GRATING AND FRAME TYPE C	EACH	8					8	8	8	
4-43	604	NUMBER 13 INLET GRATING AND FRAME	EACH	2					2	2	2	

CONTINUED ON SHEET NO. 5

AS CONSTRUCTED
 REVISION 1/1/72

SECTION	PROJECT	DATE	BY	CHECKED
1077-2-3	Colorado	10/6/62		

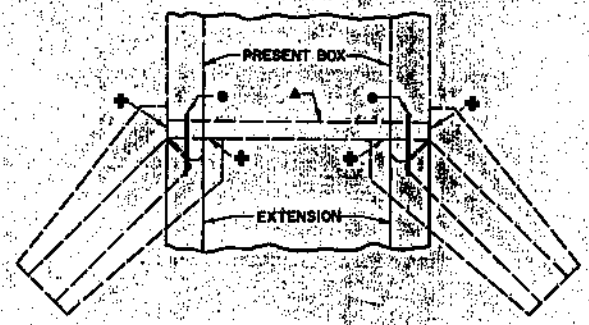
DETAIL OF INLET CAP



SECTION A-A

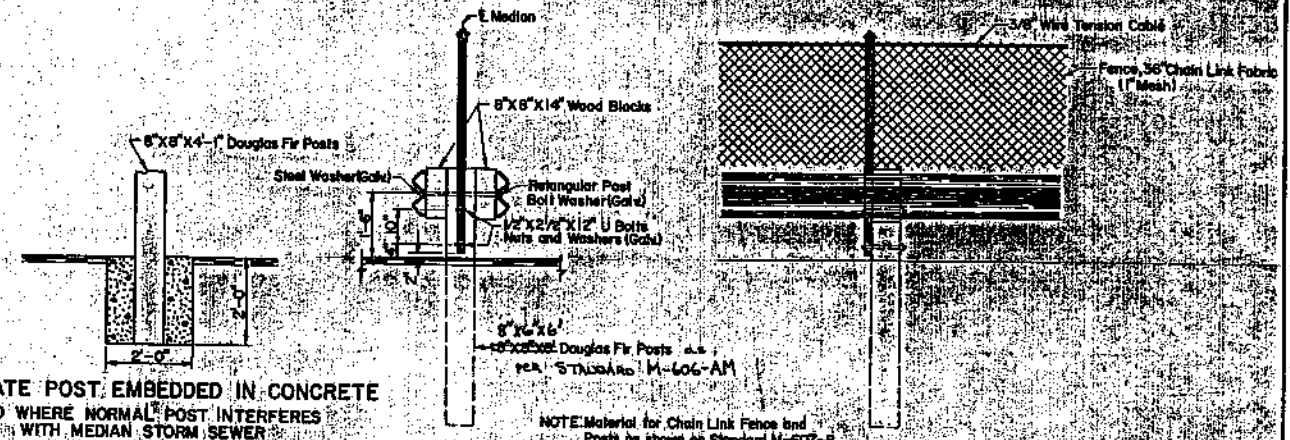
NOTE: Inlet is to be broken to a neat work line as directed by the Engineer before capping.
 Payment to be included in Item 601 Concrete Class A.
 Concrete - 0.475 Cu Yds.
 Reinforcing Steel - 59.0 lbs.
 Approximate only. Adjust to fit various inlets.

DETAIL FOR HEADWALL REMOVAL



REMOVE ALONG THESE LINES.
 THIS HEADWALL IS TO BE REMOVED WHEN FILL OVER HEADWALL IS LESS THAN 1 FOOT.
 2 FT REINFORCING BARS TO BE PLACED AT EVERY LONGITUDINAL BAR SHOWN ON THE STANDARD. SIZE TO BE SAME AS LONGITUDINAL BARS.
 THE COST OF DRILLING HOLES AND PLACING TIE BARS IS TO BE INCLUDED IN PAYMENT FOR REMOVAL OF HEADWALLS.

DETAILS OF MEDIAN BARRIER
 GUARD RAIL TYPE 3 (DOUBLE) WITH CHAIN LINK FABRIC

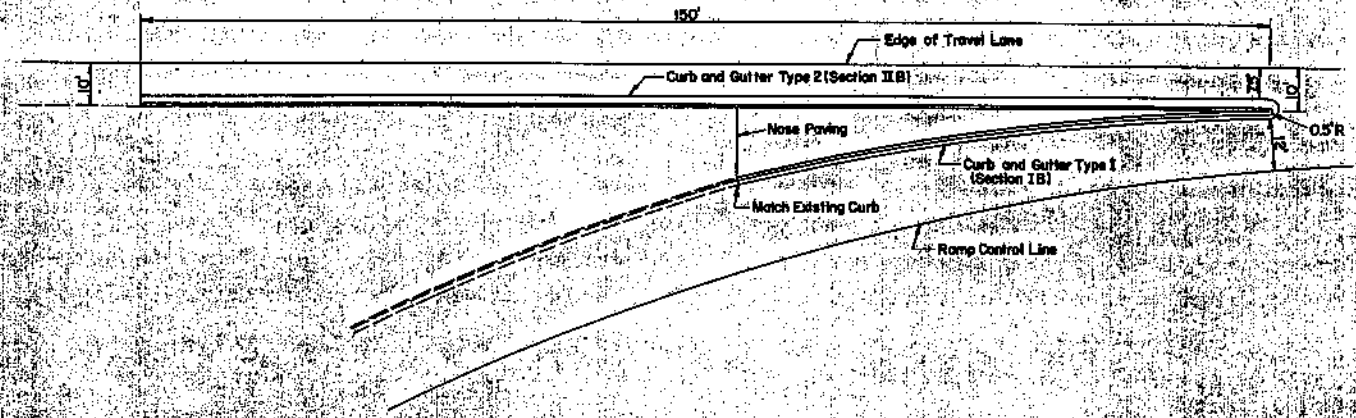


ALTERNATE POST EMBEDDED IN CONCRETE
 USED WHERE NORMAL POST INTERFERES WITH MEDIAN STORM SEWER

NOTE: Material for Chain Link Fence and Posts as shown on Standard M-607-B. Chain Link Fence Posts spacing is twice that of Guard Rail Post spacing.

TYPICAL RAMP DETAILS

TYPICAL ONE LANE ENTRANCE RAMP TO FREEWAY



TYPICAL ONE LANE EXIT RAMP FROM FREEWAY



TABULATION OF SUBBASE AND SURFACING

AS CONSTRUCTED
REVISED 11/1/72

GENERAL ROAD DISTRICT NO.	CARBON COUNTY	SECTION	NO.
PROJECT NO.	0887(2)		7

LOCATION	STATION	PLANT MIX BITUMINOUS BASE CLASS 6	AGGREGATE BASE COURSE CLASS 6	HOT BITUMINOUS PAVEMENT GRADING E	CONCRETE PAVEMENT
		TONS	TONS	TONS	SQ. YDS.
MAINLINE (Eastbound)	Trans. 210+50 to 215+50	494	36	550	753
	215+50 to 221+14.5		79	62	
	BRIDGE				
	222+87.39 to 229+22	555	89	70	846
	229+22 to 240+45	658	122	1935	
MAINLINE (Westbound)	240+45 to 247+97.6		105	83	1004
	BRIDGE				
	249+28.06 to 258+32	791	126	100	1205
	258+32 to 295+00		388	6542	
	SUB TOTAL	2498	945	9342	3808
FR. RD. RAMP & SHLD. (Eastbound)	229+22 to 240+45		1156	1752	
248+88 to 292+00				4093	
SUB TOTAL			1156	4845	
FR. RD. RAMP & SHLD. (Westbound)	228+30 to 254+82		384	1610	
255+00 to 295+00			763	3945	
SUB TOTAL			1147	5555	
PROJECT TOTALS		4986	4205	29,474	7602
FINAL TOTALS		5063.32	5541.57	27,532.38	7364

* Includes quantity for sidewalk repair under structures if required.
 † It is estimated that 60 tons of Hot Bituminous Pavement (Patching) will be required for maintenance of existing streets.
 NOTE: Plant Mixed Bituminous Base is based on the following:
 Subgrade R value = 22
 ADT = 6575
 Design k value = 425
 Modulus of Rupture = 500
 Load Safety Factor = 1.2
 H.S.P. is based on the following:
 Subgrade R value = 22
 18" EDLA = 429
 Serviceability Index = 2.5
 Regional Factor = 1.75
 Rt. Value of H.B.P. = 92

STORM SEWERS

NO.	LOCATION	TYPE	H	ELEVATION		PIPE SIZE AND LENGTH				FL ELEVATIONS		LINE	% GRADE	STRUCT. EXCAV. CL. 2	STRUCT. BACKFILL CL. 2	REMARKS	
				RIM	INVERT	18"	24"	30"	36"	M.M. OF INLET	IN						OUT
								LINEAR FEET						FT./100 FT.		CU. YDS.	
230B	230+00 LI.	3	5.4	36.00	31.31					31.31	31.31	*	1.33	7	3	* Exist. 24" R.C.P. (Inv. 31.43)	
230	230+00 LI.	SLAB BASE	5.2	34.83	30.53					30.53	31.31	*	2.38	7	3	* Exist. 24" R.C.P. (F. 30.74)	
235B	235+10 LI.	C	5.0	24.50	20.05	508				20.05	30.53	MH230	2.05	272	128	* 24" R.C.P. (Inv. 28.98)	
237B	237+00 LI.	3	6.7	22.20	16.22	190				16.22	20.05	*	2.05	105	40	* Exist. Area later	
242C	242+51 C	C	5.0	10.43	05.93	64				05.93		*	1.00	47	11	* Exist. 24" R.C.P. (Inv. 28.98) * Capped Inlet (F. 05.30)	
256B	256+07 LI.	C	5.5	94.00	88.97					88.97	88.97	*				* Exist. 24" R.C.P.	
263B	263+00 LI.	3	4.7	83.20	79.15					79.15	88.97	*	0.80	6	2	* 24" R.C.P. (Inv. 79.18)	
272A	272+00 RI.	3	5.2	70.00	65.50					65.50		*				* Exist. 24" R.C.P.	
272B	272+00 LI.	3	5.7	70.20	65.18					65.18	65.18	*	1.44	6	3	* 30" R.C.P. (Inv. 65.24) * Exist. 36" R.C.P.	
280A	280+90 RI.	3	4.6	53.30	49.33					49.33	49.33	*				* Exist. 24" R.C.P.	
280B	280+90 LI.	3	4.9	53.20	49.02					49.02	49.02	*	0.48	4	3	* 24" R.C.P. (Inv. 49.22) * Exist. 24" R.C.P.	
289A	289+00 RI.	3	5.1	39.10	34.70					34.70	34.70	*	0.94	5	2	* 18" R.C.P. (Inv. 34.78)	
256	256+32 LI.	SLAB BASE	5.0	92.00	87.91					87.91	87.91	*	1.74	7	3	* Exist. 18" R.C.P.	
257B	257+40 LI.	C	3.3	89.90	87.13					87.13	87.13	MH 256	0.75	7	35	* Exist. 24" R.C.P.	
PROJECT TOTALS																	* 24" R.C.P. (F. 66.29)

SUMMARY OF INLETS

TYPE	DEPTH	QUANTITY
3	5	3
3	10	5
C	5	3
C	10	1

SUMMARY OF MANHOLES

TYPE	DEPTH	QUANT.
SLAB	5	1
BASE	10	1

HEIGHT OF FILL ABOVE PIPE MINIMUM
 * See BK # 5, pg 47
 For summary of totals

REMOVAL OF EXISTING CURBS AND GUTTER

STATION	LOCATION	LIN. FT.	FINAL
228+45 - 238+65	LT.	1223	1232.5
214+30 - 217+00	LT.	0	210.1
257+12 - 277+82	LT.	2092	2083.2
259+21 - 291+82	RT.	3477	3571.0
STR. FILL - EOLAP		0	78.1
280+00 - 281+70	LT.	170	
318+30 - 317+05	RT.	0	168.8
PROJECT TOTALS		6962	7821.3

TABULATION OF CURBS AND GUTTERS

STATION	CURB & GUTTER TYPE 2 (SECTION III)	CURB & GUTTER TYPE 2 (SECTION IB)	CURB & GUTTER TYPE 2 (SECTION IB)	CURB TYPE 2 (DOUBLE FACED)
	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.
228+45 - 235+00 LT.		150	184	47
235+00 - 236+83 LT.			130	47
237+64 - 239+14 LT.			152	
216+00 - 217+00 LT.			100	
256+54 - 277+75 LT.			1966	
259+21 - 265+00 RT.			578	
265+00 - 291+8 RT.	213	88	603	1964
218+00 - 219+00 RT.			120	
PROJECT TOTALS	213	238	1289	5031
Includes Ramps	286	281	1340	5212

MANHOLE & INLET ADJUSTMENTS

LOCATION	ADJUST. MANHOLE	ADJUST. INLET	INLET GRATING & FRAME
217+00 LI.		217C	TYPE C
226+50 LI.		226C	TYPE C
230+00 LI.		230C	TYPE C
230+85 LI.	S.M.H. 230		
235+40 LI.	S.M.H. 235		
257+90 LI.	S.M.H. 257		
237+00 LI.		237C	TYPE C
256+00 LI.		256C	TYPE C
282+10 LI.	S.M.H. 282		
266+90 LI.	S.M.H. 266		
271+40 LI.	S.M.H. 271		
263+00 LI.		263C	TYPE C
275+90 LI.	S.M.H. 275		
272+00 LI.		272C	TYPE C
273+00 LI.		273C	TYPE C
280+90 LI.		280C	TYPE C
283+10 LI.	S.M.H. 283		
284+40 LI.	S.M.H. 284		
289+00 LI.		289C	TYPE C
287+10 LI.	S.M.H. 287		
288+50 LI.	S.M.H. 288		
292+45 LI.	S.M.H. 292		
PROJECT TOTALS	10	10	18 TYPE C, 2 TYPE B
FINAL TOTALS	12	10	

NOTE: DETAILS OF INLET ADJUSTMENTS SHOWN ON SHEET B

LIST OF REMOVALS

NOTE	LOCATION	DESCRIPTION
1	230+00 LT.	REMOVE CONCRETE DROP INLET & 12" x 24" R.C.P. - deleted, capped
2	230+00 LT.	REMOVE 17 SQ. YDS. CONC. PAVEMENT
3	230+00 LT.	REMOVE 6' CONCRETE HEADWALL
4	230+50 LT.	REMOVE 30' x 12' x 16" W.B.C.
5	231+55 LT.	REMOVE 33' x 24" R.C.P.
6	232+20 LT.	REMOVE 32' x 12' x 16" W.B.C.
5A-5C	232+68, 234+41 LT.	REMOVE 3-30' x 12' x 16" W.B.C.'s
5D	233+35 LT.	REMOVE 48' x 15" C.S.P.
5E	238+11 LT.	REMOVE 68' x 15" R.C.P.
6	236+29 LT.	REMOVE 24" FLARED END SECTION
7	237+70 LT.	REMOVE 48' x 18" C.S.P.
8	238+34 LT.	REMOVE 12' x 18" C.S.P.
9	263+00 LT.	REMOVE CONCRETE DROP INLET - deleted, capped 3' x 24" R.C.P.
10	263+00 LT.	REMOVE 6' CONCRETE HEADWALL
11	263+00 RT.	REMOVE CONCRETE DROP INLET - deleted, capped
12	263+65 LT.	REMOVE 48' x 18" C.S.P.
13	266+70 LT.	REMOVE 48' x 18" C.S.P.
14	269+50 LT.	REMOVE 50' x 18" C.S.P.
15	272+00 RT.	REMOVE 6' CONCRETE HEADWALL
16	272+00 RT.	REMOVE CONCRETE DROP INLET - deleted, capped
17	272+00 LT.	REMOVE CONCRETE DROP INLET
19	273+00 RT.	REMOVE 6' CONCRETE HEADWALL 9 LIN. FT. CONCRETE DITCH LINING
20	280+90 RT.	REMOVE CONCRETE DROP INLET - deleted, capped
21	280+90 LT.	REMOVE CONCRETE DROP INLET - deleted, capped
22	284+57 RT.	REMOVE 32' x 12' x 16" W.B.C. 24' x 12' x 16" W.B.C.
23	285+72 RT.	REMOVE 30' x 12' x 16" W.B.C. 24' x 12' x 16" W.B.C.
24	286+ RT.	REMOVE 60 SQ. YDS. CONC. PAVEMENT
25	286+ RT.	REMOVE 22' x 18" C.S.P. 24' x 18" W.B.C.
26	287+06 RT.	REMOVE 24' x 12' x 16" W.B.C.
27	288+11 RT.	REMOVE 30' x 12' x 16" W.B.C. 26' x 12' x 16" W.B.C.
28	289+00 RT.	REMOVE 6' CONCRETE HEADWALL
29	289+00 RT.	REMOVE CONCRETE DROP INLET
30	289+75 RT.	REMOVE 30' x 12' x 16" W.B.C. 24' x 12' x 16" W.B.C.
31	290+16 RT.	REMOVE 16' x 18" x 23" C.S.P.
	ENTIRE PROJECT	REMOVE 533' GUARD FENCE

① C. INLETS THAT WERE REMOVED WERE CAPPED INSTEAD

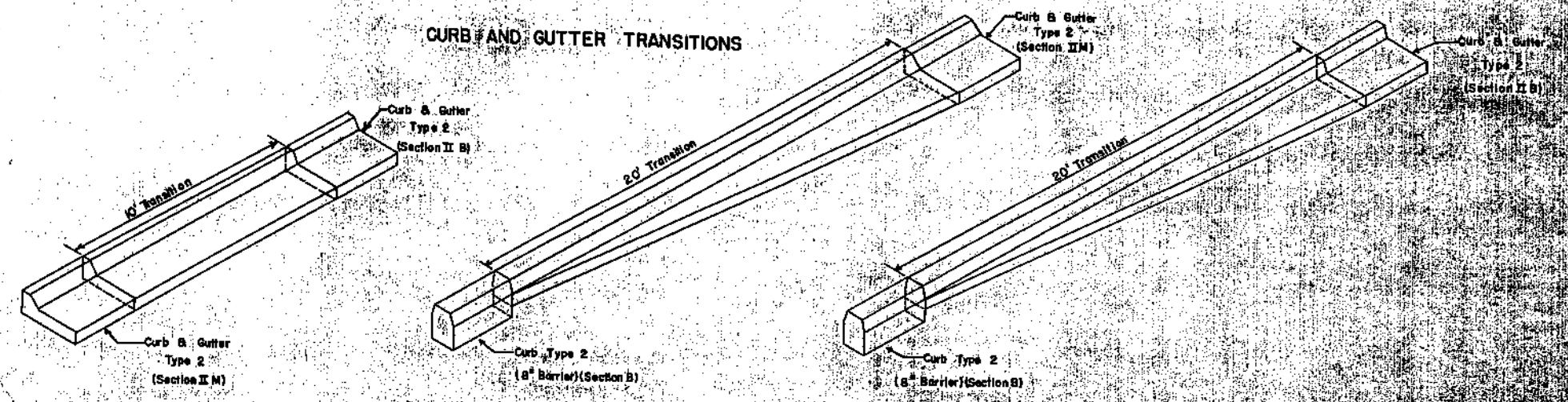
SUMMARY

ITEM	UNITS	QUANTITY	FINAL QUANT.
REMOVAL OF CONDUIT	LIN. FT.	408	381
REMOVAL OF STRUCTURES	EA.	24	18
REMOVAL OF HEADWALL	EA.	5	5
REMOVAL OF CONCRETE PAVEMENT	SQ. YDS.	77	95
REMOVAL OF CONCRETE DITCH LINING	LIN. FT.	9	3
REMOVAL OF GUARD FENCE	LIN. FT.	533	510

* Includes W.B.C.'s

AS CONSTRUCTED
REVISED DATE 7/2/72

CURB AND GUTTER TRANSITIONS



TABULATION OF DELINEATORS

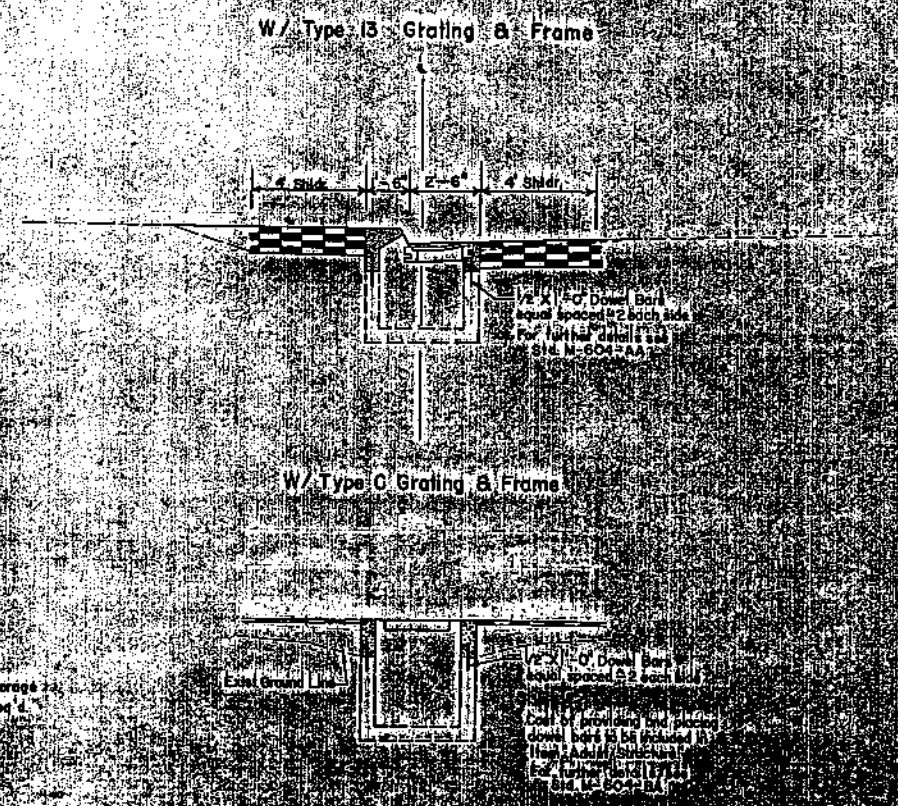
STATION	ITEM 512 DELINEATORS		
	EACH		
	TYPE I	TYPE II	TYPE III
210+00 to 220+00			2
220+00 to 235+00	4	5	2
235+00 to 250+00	3		1
250+00 to 265+00	7		
265+00 to 280+00	10		
280+00 to 295+00		13	
TOTAL	24	18	5
FINAL QUANTITIES	24	22	5

TABULATION OF FENCING

STATION	ITEM 606 GUARD RAIL TYPE 3	ITEM 608 GUARD RAIL TYPE 3 DOUBLE CHAIN LINK 36"	ITEM 607 FENCE
	LIN. FT.	LIN. FT.	LIN. FT.
212+25 to 220+00		775	775
220+00 to 235+00		1337	1500
235+00 to 250+00		1571	1500
250+00 to 265+00		1500	1500
265+00 to 280+00	50	1500	1500
280+00 to 292+25		1225	1225
TOTAL	50	7,708	8,000
FINAL QUANTITIES	148	7,743	7,794

Note: Final quantities for 292+25 to 294+75, Reseal 250 L.P. Guard Rail Type 3 (Double). The Marshall include flashing chain link mesh and removal of the End Anchorage.

MEDIAN INLET ADJUSTMENT



LIST OF STRUCTURES AS CONSTRUCTED

[R-1] REV. 5-28-71 G.S.

FEDERAL ROAD DISTRICT NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
#	COLORADO	U006-6(2)	10	

REVISED DATE 7-18-72

LOCATION	DESCRIPTION	NOTE NUMBER	ITEM 503	ITEM 506	ITEM 508	ITEM 507	ITEM 601	ITEM 602	ITEM 604		ITEM 603		REMARKS
			UNCLASSIFIED EXCAVATION	STRUCTURE EXCAVATION	STRUCTURE BACKFILL CLASS 2				BITUMINOUS SLOPE AND DITCH PAVING	MISC CONCRETE CLASS A	REINFORCING STEEL	REINFORCED CONC. PIPE SEWER	
			CU. YD.	CU. YD.	CU. YD.	TON	CU. YD.	LB.	14"	24"	18"		
221+00	Req'd. Bridge Widening												
248+00	Req'd. Bridge Widening												
256+00L&B243+16E	Req'd.(2) Reinforced Conc. Cap on Inlet	A											
258+80 Lt.	Req'd. Outlet Ditch	B	6					1.0	118				
260+70 Lt.	Req'd Extend 18" C.S.P. 6' each end	C		5	2								
263+00 Lt.	Req'd 6' X 24" R.C.P. w/Headwall	D		10	3							12	
263+85 Lt.	Req'd 48' X 18" C.S.P.	E		20	8			1.5		6			
266+70 Lt.	Req'd 50' X 18" C.S.P.	F		16	8							48	
269+50 Lt.	Req'd 52' X 18" C.S.P.	G		16	9							50	
272+00 Lt.	Req'd Extend 18" C.S.P. 10' Bk.	H		5	2							52	
272+00 Rt.	Req'd Extend 24" R.C.P. 10' Rt. w/Headwall	I	9	12	4							10	
273+00 Rt.	Req'd Extend 6' X 4' C.B.C.-9' (Type 6A) w/Headwall & Grout 6' X 4' C.B.C. to Conc. Ditch Lining	J		24	9			1.5		10			
284+65 Rt.	Req'd 32' X 18" C.S.P.	K		14	6			6.8	610 [#]				Includes dowel bars
285+67 Rt.	Req'd 32' X 18" C.S.P.	L		14	6							32	
286+13 Rt.	Req'd 30' X 18" C.S.P.	M		14	5							32	
												30	
286+90 Rt.	Req'd 56' X 18" C.S.P.	O		23	9								
288+10 Rt.	Req'd 30' X 18" C.S.P.	P		14	4							56	
289+00 Rt.	Req'd Extend 18" R.C.P. 8' Rt. w/Headwall	Q		16	6							30	
289+75 Rt.	Req'd. 30' X 18" C.S.P.	R		14	5			1.0		6			
290+08 Rt.	Req'd. 16' X 18" C.S.P.	S		7	3							30	
280+ to 294+ 290+08 Rt.	Req'd. Bituminous Ditch Paving Req'd. 6' X 18" C.S.P. EXT	T U		262	112		214					16	
Entire Project	Req'd. Barricades Class I (Type M-1)-4ea. Barricades Class I (Type M-4)-6ea.							3.5				6	
211+00± Rt. & 292+00± Lt. Entire Project	Req'd. (2) Identification Signs (State Forces) Reset 16 Mailbox Structures Reset 3 Light Standards (Work by Public Service Co. forces)												
Entire Project - Force Account													
PROJECT TOTALS			15.0	224	83		214	12.3	728	8	16	398	

HEIGHT OF FILL ABOVE PIPE MINIMUM.

* See Book 5, Page 46 for Summary

ASASO CONSTRUCTED
REVISED DATE: JUL 14 1972

FEDERAL ROAD DISTRICT NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	U-006-6(2)	11	

REVISIONS	

GENERAL NOTES

ALL WORK SHALL BE DONE ACCORDING TO THE STANDARD SPECIFICATIONS OF THE DIVISION OF HIGHWAYS, STATE OF COLORADO, APPLICABLE TO THE PROJECT.

EACH REINFORCING BAR SHALL BE TAGGED WITH BAR DESIGNATION, STRUCTURE NUMBER AND STATION OF THE PROJECT. THE FIRST DIGIT OR DIGITS, 4-11 OF THE REINFORCING BAR DESIGNATION INDICATES THE BAR SIZE. EXAMPLE: 406 = #4 BAR, 1103 = #11 BAR. ALL DIMENSIONS ON BAR BENDING DIAGRAM ARE OUT TO OUT. DIMENSIONS FOR REINFORCING BARS NOT SHOWN AS CLEAR SHALL BE TO THE CENTERLINE OF THE BAR. IF BY PERMISSION OF THE ENGINEER PRIMARY BARS ARE SPLICED, THEY SHALL LAP A MINIMUM OF 40 DIAMETERS.

ALL CONCRETE SURFACES MARKED WITH THE SYMBOL \int AS SHOWN ON DRAWING NO. U-18 SHALL RECEIVE A CLASS 2 SURFACE FINISH.

ALL CONCRETE CHAMFERS SHALL BE 3/4" UNLESS OTHERWISE NOTED.

EXPANSION JOINT MATERIAL SHALL MEET AASHTO SPECIFICATION M 213-65 UNLESS OTHERWISE NOTED.

SOUNDINGS AND DEPTH OF FOOTINGS ARE IN ACCORDANCE WITH THE BEST AVAILABLE DATA. WHEN DIFFERENT CONDITIONS ARE ENCOUNTERED, THE BRIDGE ENGINEER WILL INSPECT AND DETERMINE IF REDESIGN IS NECESSARY.

WHEN TREATED TIMBER PILING IS SHOWN ON THE PLANS, THE PRESERVATIVE FOR TREATMENT SHALL BE CREOSOTE OIL.

WHEN EXCAVATING FOR FOOTINGS THE FINAL SIX INCHES IN DEPTH SHALL BE DONE BY HAND-LABOR METHODS.

FOR DETAILS OF STRUCTURE EXCAVATION AND STRUCTURE BACKFILL, SEE STANDARD M-206-AA.

ALL STRUCTURAL STEEL NOT OTHERWISE NOTED SHALL BE AASHTO SPECIFICATION M-183.

ALL STRUCTURAL STEEL NOT OTHERWISE NOTED SHALL BE PAINTED IN ACCORDANCE WITH SECTION 509 FOR ALUMINUM PAINT.

ALL BOLTS SHALL BE 3/4" DIAMETER, HIGH STRENGTH, UNLESS OTHERWISE NOTED.

NO HOLDING OF ANY KIND SHALL BE PERMITTED ON THE FLANGES OF STEEL GIRDERS UNLESS SPECIFICALLY CALLED FOR ON THE PLANS.

SUMMARY OF QUANTITIES

Item No.	Description	Unit	Super-Structure	Abut. 1	Pier 2	Pier 3	Pier 4	Abut. 5	Total	Remarks
202	Removal of Portions of Present Structures	Each							1	BK#4, P22
206	Structure Excavation	Cu. Yd.		15	45	48	42	15	165	BK#1, P11
206	Structure Backfill (Class 2)	Cu. Yd.		4	41	44	38	5	130	BK#1, P13
502	Steel Piling Cut-Off	Lin. Ft.		0	11	25	18	7	61	BK#1, P31
516	Demulsifying (Linseed Oil)	Sq. Yd.		788	192	176	174	104	904	980 BK#7-A, P28
509	Structural Steel (Galvanized)	Lb.		746	204	188	209	191	1445	738 BK#3, P33
601	Concrete Class A	Cu. Yd.			13	13	13		39	BK#1, P31
601	Concrete Slope & Ditch Paving (Reint)	Cu. Yd.		6	1.34		5	6	18	634 BK#2, P32
601	Concrete Class D	Cu. Yd.		210	6	10.5	12	10.5	255	BK#1, P37
602	Reinforcing Steel	Lb.	84,560	525	2,681	2,604	2,574	525	93,469	BK#1, P38
606	Guard Rail Type 3A (Double)	lin. Ft.		163					163	BK#8, P10
②	1/2" Expansion Joint Material	Sq. Ft.		59					59	

- ① 10WF 45 May be used in lieu of 10BP42.
- ② To be included in the bid price for Item No. 601 Concrete Class D.
- ③ Includes 142 Sq. Yd. for approach slabs.

INDEX OF DRAWINGS

- Dwg. No. B1 General Information - Summary of Quantities
- Dwg. No. B2 General Layout
- Dwg. No. B3 Engineering Geology
- Dwg. No. B4 Elevations (Structure F-16-ED)
- Dwg. No. B5 Elevations (Structure F-16-EP)
- Dwg. No. B6 Bar List - Bar Summary - Bending Diagrams
- Dwg. No. B7 Construction Layout
- Dwg. No. B8 Piling and Footing Layout
- Dwg. No. B9 Abutment Details
- Dwg. No. B10 Pier Details
- Dwg. No. B11 Pier Details
- Dwg. No. B12 Girder Reinforcing - Span 1 & 2
- Dwg. No. B13 Girder Reinforcing - Span 3 & 4
- Dwg. No. B14 Girder Stirrup Spacing
- Dwg. No. B15 Slab Reinforcing
- Dwg. No. B16 Typical Section
- Dwg. No. B17 Miscellaneous Details
- Dwg. No. B18 Approach Slab Details, Surface Finish Details, Bar List - Bar Summary 2 Appr Slabs, Summary of Quantities 2 Appr Slabs

DATE	7-7	CHECKED BY	S-7
DATE	9-7	CHECKED BY	S-7
DATE	9-7	CHECKED BY	S-7
DATE	9-7	CHECKED BY	S-7

ALL REINFORCING BAR SPLICES SHOWN IN THE SUPERSTRUCTURE SHALL HAVE A MINIMUM LAP OF 40 DIAMETERS UNLESS OTHERWISE NOTED. WHERE SPLICES CONTAIN BARS OF DIFFERENT DIAMETERS THE SPLICE LENGTH SHALL BE GOVERNED BY THE SMALLEST BAR.

THE FOLLOWING TABLE SHOWS THE MINIMUM 40 DIAMETER LAP FOR COMMON BAR SIZES.

BAR SIZE	#4	#5	#6	#7	#8	#9	#10	#11
LAP	1'-8"	2'-1"	2'-6"	2'-11"	3'-4"	3'-10"	4'-3"	4'-9"

LOADING DATA
 LIVELOAD: AASHTO HS-20-44
 DEADLOAD: ASSUMES 20 LBS. PER SQ. FT. ADDITIONAL WEARING SURFACE.
 NO PROVISION HAS BEEN MADE FOR ADDITIONAL OVERLAYS.

DESIGN DATA
 AASHTO UNIT STRESSES EXCEPT AS NOTED.

REINFORCING STEEL: GRADE 40 $F_s = 20,000$ LBS. PER SQ. IN.
 GRADE 60 $F_s = 24,000$ LBS. PER SQ. IN.

STRUCTURAL STEEL: A 36 $F_s = 20,000$ LBS. PER SQ. IN.
 A 572 GRADE 50 $F_s = 27,000$ LBS. PER SQ. IN.

CONCRETE: $F_c = 1,200$ LBS. PER SQ. IN.
 $n = 10$

LEGEND

- E.F. = EACH FACE
 - N.F. = NEAR FACE
 - F.F. = FAR FACE
 - B.E.I. = BY EQUAL INCREMENTS
- CROSS REFERENCE DRAWING NUMBER
- SECTION OR DETAIL IDENTIFICATION

BRIDGE DESCRIPTION

Widening, 4 Simple Spans (32'-6", 53'-6", 53'-6", 28'-6")
 Continuous Concrete Slab and Girder Bridge.

Over Kipling St.
 Widen To 112'-0", 90'-0" Skew, 2'-8" Median
 (2'-0" Curbs and Standard Bridge Rail, Existing).

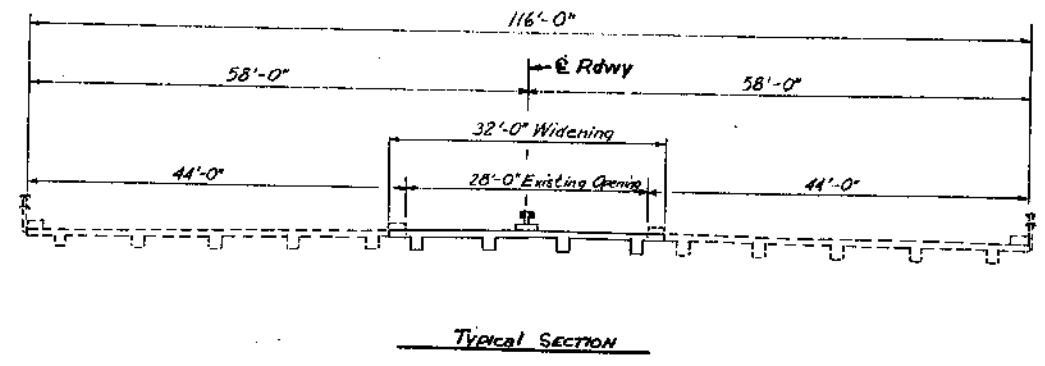
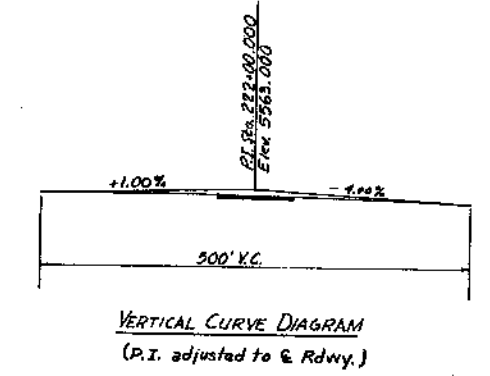
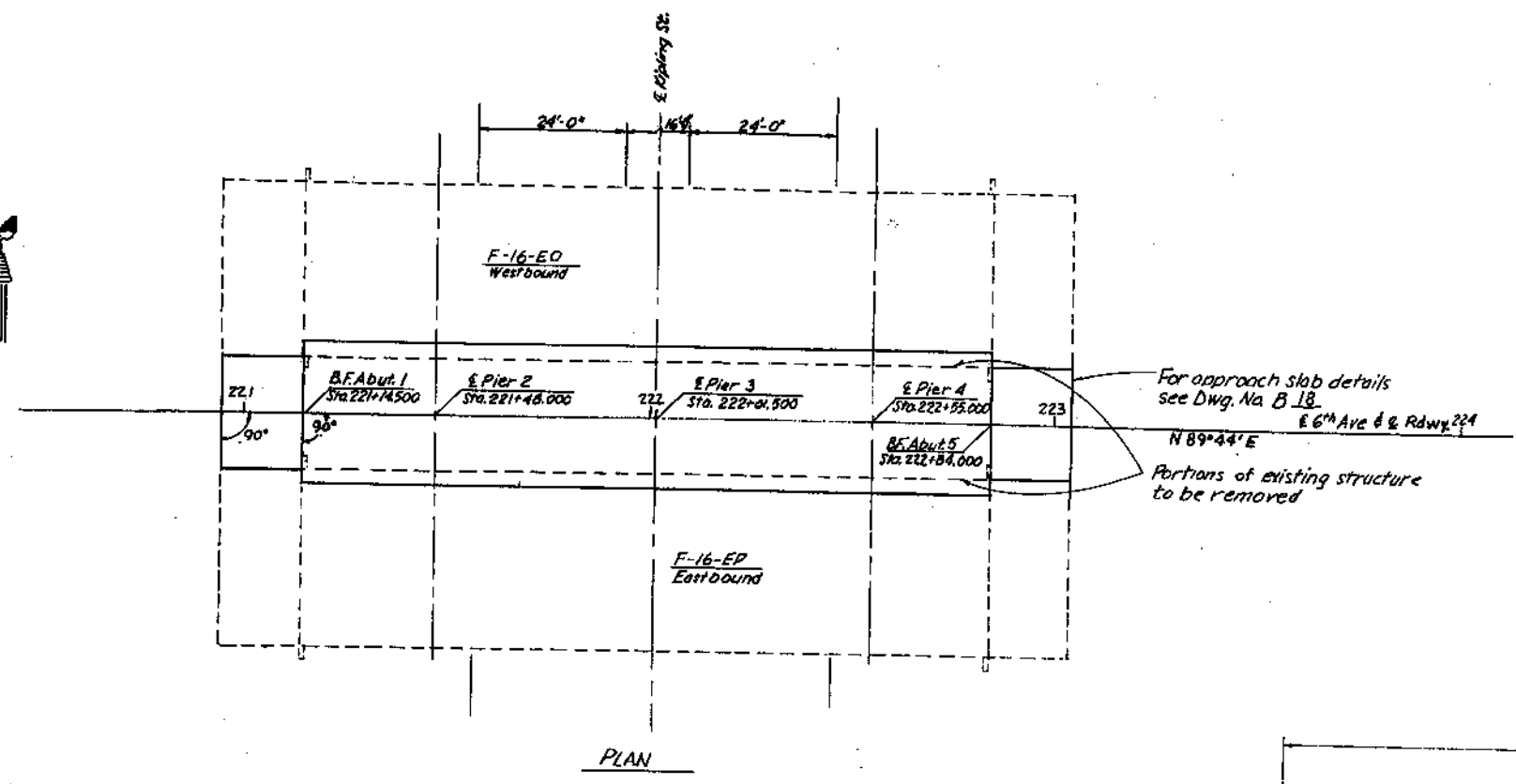


DIVISION OF HIGHWAYS	
GENERAL INFORMATION	
SUMMARY OF QUANTITIES	
Station	221+14.500 To 222+84.500
Section	9 T. 43 R. 69W
Design	G. Singh
Check	J.S.R.
Structure	F-16-ED
Members	F-16-EP
Drawn	E.B.
Date	Apr. 30, 1971
DWG. No.	8 1 OF 18

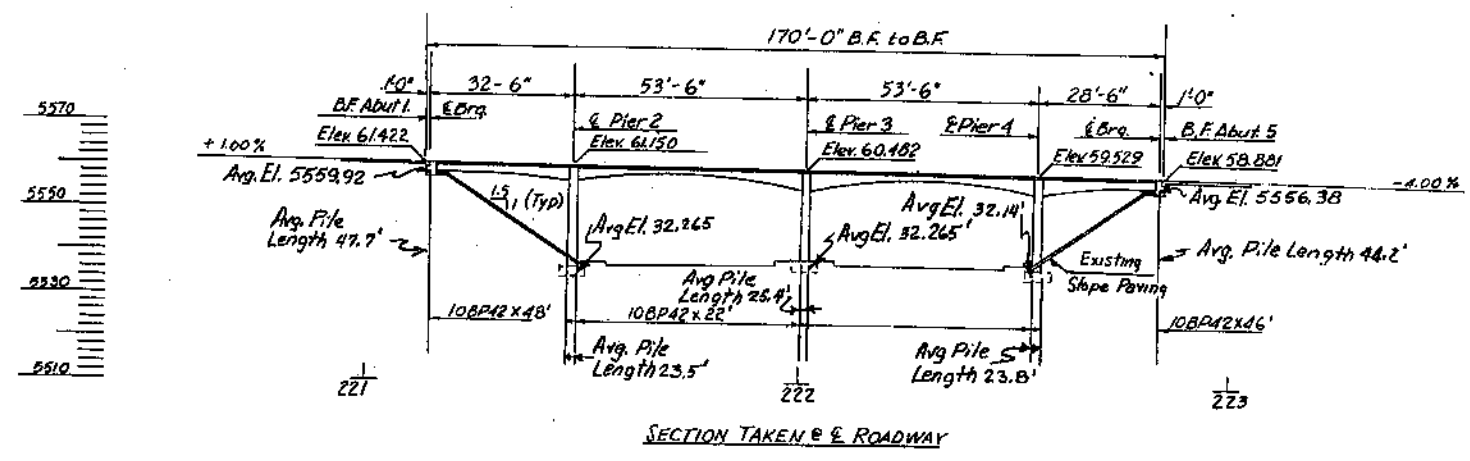
AS CONSTRUCTED
REVISED JUL 14 1992
 REVISED DATE: JUL 14 1992

FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
COLORADO	U-006-6(2)	12	

REVISIONS	



INITIAL	DATE	CHECKED BY	QUANTITIES BY	DESIGNED BY	DATE	CHECKED BY	QUANTITIES BY	DESIGNED BY	DATE
G.S.	1-77	V.R.	V.R.	V.R.	3-71	V.R.	V.R.	V.R.	3-71



Note: All piling are end bearing. Pile lengths are estimated. Elevations are at top of concrete deck.

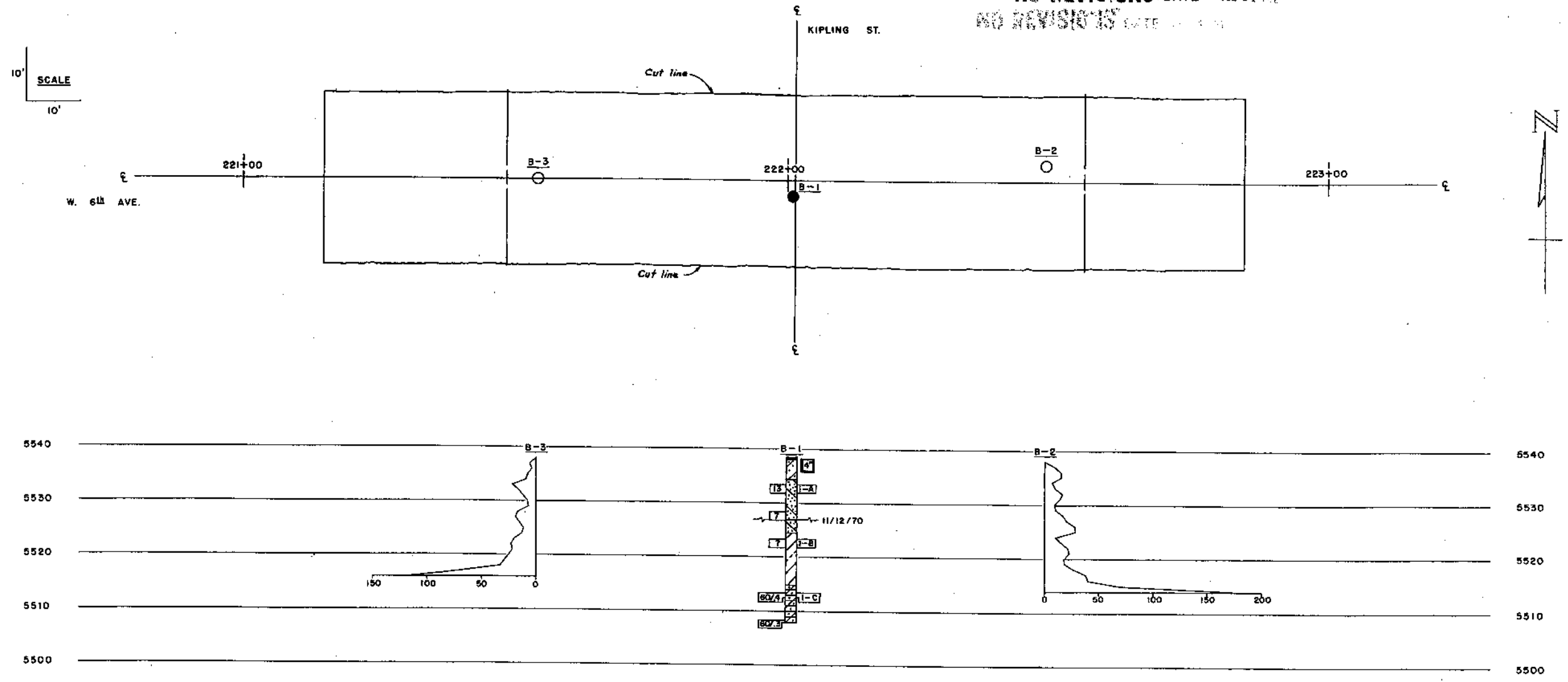
DIVISION OF HIGHWAYS

GENERAL LAYOUT

Approved:	Designer: G. Singh	Detailer: Y. Zeboun
Bridge Engineer:	Structure Number: F-16-E0	W.B.
Date:	Structure Number: F-16-EP	E.B.
	DWG. No. B 2 of 18	

AS CONSTRUCTED
NO REVISIONS DATE JUL 14 1972
NO REVISIONS DATE

FED. ROAD DIST. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	U 006-8(2)	13	



SUMMARY OF TEST RESULTS

Sample No.	Depth	Classification	AAHO	Grading Analysis				Atterberg Limits			Water Cont. %	Net Unit Weight γ _{sat}	Unconsolidated Strength q_u	Triaxial Shear Strength				Dis. Di Sample (inches)
				Percent	Liquid Limit %	Plastic Limit %	Plasticity Index %	W _L	W _P	W _U				σ ₁	σ ₃	τ	φ	
I-A	6.0 - 6.5	SANDY CLAY	A-6(5)	11	15	32	42	36	22	16	10.2							
I-B	15.0 - 16.5	SANDY CLAY	A-6(5)	5	12	36	47	39	22	17	31.8							
I-C	25.0 - 25.5	SANDY CLAY	A-7-6(22)	1	2	18	79	55	30	25	23.3							

TYPE OF MATERIAL

- ASPHALT
- ▨ SANDY CLAY
- ▨ SILTY CLAY
- ▨ CLAYEY SAND
- ▨ SANDY CLAYSTONE

LEGEND

TEST BORING

- Hole Size
- Sample No.
- Location of Test Boring
- Location of Continuous Penetration Test
- Rotary Boring
- Auger Boring
- ◇ Core Boring

CONTINUOUS PENETRATION TEST

2 in. Dia. Drive Point
140 Lb. Hammer
30 in. Free Fall

Blows Per Foot (Standard Penetration Test)
Water Table 2/16/67

2 in. O.D. Split-Tube Sampler
140 Lb. Hammer
30 in. Free Fall

**DIVISION OF HIGHWAYS
STATE OF COLORADO**

ENGINEERING GEOLOGY

APPROX. KIPLING ST. (ST. NOS. F-17-EP)
Sec. 9, T. 4S, R. 69W
Near LAKEWOOD

Geologist: K. W. B. Approved by:
Made by: D. K. D. Bridge Engineer
Checked by: S. G. P. Date: 19

AS CONSTRUCTED
NO REVISIONS DATE JUL 14 1972

FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	COLORADO	U006-6(2)	14

REVISIONS	

STR. F-16-E0 W.R.
U006-6(2)
DES. BY GS
DET. BY TDB
INPUT BY TDB (2-29-71)
ELEV. ARE TOP OF
CONC. DECK

INPUT DATA FOR BRIDGE F-16-E0

POY = 221 + 14.9000 ALPHA = 0 0 8.00 RONY = 54.6667 OR = 1.0000
PI = 222 + 8.0000 EPI = N563.6300 VC = 560.6587 OR = -4.0000
TYPE = 1 SLOPE = .0150

CL ABUT 1 TO
CL PIER 2

STATION	ELEVATION
CL GIRDER 7	
STA BACK	221 + 15.9000 5561.1755
1 10TH	221 + 14.7500 5561.1537
2 10TH	221 + 22.0000 5561.1704
3 10TH	221 + 24.2500 5561.1869
4 10TH	221 + 28.5000 5561.0819
5 10TH	221 + 31.7500 5561.0590
6 10TH	221 + 34.0000 5561.0361
7 10TH	221 + 38.2500 5561.0006
8 10TH	221 + 41.5000 5560.9774
9 10TH	221 + 44.7500 5560.9411
STA AHEAD	221 + 44.0000 5560.9098

STATION	ELEVATION
CL GIRDER 4	
STA BACK	221 + 15.9000 5561.2242
1 10TH	221 + 18.7500 5561.2024
2 10TH	221 + 22.0000 5561.1795
3 10TH	221 + 25.2500 5561.1556
4 10TH	221 + 24.5000 5561.1306
5 10TH	221 + 31.7500 5561.1046
6 10TH	221 + 34.0000 5561.0815
7 10TH	221 + 34.2500 5561.0443
8 10TH	221 + 41.5000 5561.0281
9 10TH	221 + 44.7500 5560.9909
STA AHEAD	221 + 44.0000 5560.9595

STATION	ELEVATION
CL GIRDER 7	
STA BACK	221 + 15.9000 5561.1517
1 10TH	221 + 18.7500 5561.1299
2 10TH	221 + 27.0000 5561.1070
3 10TH	221 + 25.2500 5561.2031
4 10TH	221 + 28.5000 5561.2501
5 10TH	221 + 31.7500 5561.2321
6 10TH	221 + 35.0000 5561.2050
7 10TH	221 + 34.2500 5561.1768
8 10TH	221 + 41.5000 5561.1476
9 10TH	221 + 44.7500 5561.1174
STA AHEAD	221 + 44.0000 5561.0860

STATION	ELEVATION
N FACE MEDIAN	
1 10TH	221 + 18.5000 5561.3935
2 10TH	221 + 18.7500 5561.3737
3 10TH	221 + 22.0000 5561.1508
4 10TH	221 + 25.2500 5561.1769
5 10TH	221 + 24.5000 5561.3019
6 10TH	221 + 31.7500 5561.2758
7 10TH	221 + 35.0000 5561.2488
8 10TH	221 + 41.5000 5561.2296
9 10TH	221 + 44.7500 5561.1611
STA AHEAD	221 + 44.0000 5561.1296

STATION	ELEVATION
CL 6TH AVE.	
STA BACK	221 + 15.9000 5561.4155
1 10TH	221 + 18.7500 5561.3937
2 10TH	221 + 22.0000 5561.3708
3 10TH	221 + 25.2500 5561.3469
4 10TH	221 + 24.5000 5561.3219
5 10TH	221 + 31.7500 5561.2958
6 10TH	221 + 35.0000 5561.2687
7 10TH	221 + 36.2500 5561.2406
8 10TH	221 + 41.5000 5561.2114
9 10TH	221 + 44.7500 5561.1811
STA AHEAD	221 + 44.0000 5561.1498

CL PIER 2 TO
CL PIER 3

STATION	ELEVATION
CUT LINF	
STA BACK	221 + 44.0000 5560.4098
1 10TH	221 + 53.3500 5560.4599
2 10TH	221 + 54.7000 5560.4992
3 10TH	221 + 64.0500 5560.7396
4 10TH	221 + 69.4000 5560.4772
5 10TH	221 + 74.7500 5560.6119
6 10TH	221 + 80.1000 5560.4437
7 10TH	221 + 85.4500 5560.4727
8 10TH	221 + 90.8000 5560.3988
9 10TH	221 + 96.1500 5560.3229
STA AHEAD	222 + 1.5000 5560.4424

STATION	ELEVATION
CL GIRDER 6	
STA BACK	221 + 44.0000 5560.4585
1 10TH	221 + 53.3500 5560.4047
2 10TH	221 + 54.7000 5560.4480
3 10TH	221 + 64.0500 5560.7884
4 10TH	221 + 69.4000 5560.7259
5 10TH	221 + 74.7500 5560.4606
6 10TH	221 + 80.1000 5560.5924
7 10TH	221 + 85.4500 5560.5214
8 10TH	221 + 90.8000 5560.4475
9 10TH	221 + 96.1500 5560.3789
STA AHEAD	222 + 1.5000 5560.4411

STATION	ELEVATION
CL GIRDER 7	
STA BACK	221 + 44.0000 5561.0960
1 10TH	221 + 53.3500 5561.0322
2 10TH	221 + 54.7000 5560.9755
3 10TH	221 + 64.0500 5560.4150
4 10TH	221 + 69.4000 5560.4534
5 10TH	221 + 74.7500 5560.7441
6 10TH	221 + 80.1000 5560.7199
7 10TH	221 + 85.4500 5560.6489
8 10TH	221 + 90.8000 5560.5740
9 10TH	221 + 96.1500 5560.4993
STA AHEAD	222 + 1.5000 5560.4184

STATION	ELEVATION
N FACE MEDIAN	
1 10TH	221 + 44.0000 5561.1204
2 10TH	221 + 53.3500 5561.0759
3 10TH	221 + 54.7000 5561.0192
4 10TH	221 + 64.0500 5560.9594
5 10TH	221 + 69.4000 5560.4972
6 10TH	221 + 74.7500 5560.4319
7 10TH	221 + 80.1000 5560.7637
8 10TH	221 + 85.4500 5560.4927
9 10TH	221 + 90.8000 5560.6184
0 10TH	221 + 96.1500 5560.4474
STA AHEAD	222 + 1.5000 5560.4624

STATION	ELEVATION
CL 6TH AVE.	
STA BACK	221 + 44.0000 5561.1494
1 10TH	221 + 53.3500 5561.0959
2 10TH	221 + 54.7000 5561.0392
3 10TH	221 + 64.0500 5560.9794
4 10TH	221 + 69.4000 5560.9172
5 10TH	221 + 74.7500 5560.8519
6 10TH	221 + 80.1000 5560.7837
7 10TH	221 + 85.4500 5560.7127
8 10TH	221 + 90.8000 5560.6389
9 10TH	221 + 96.1500 5560.5620
STA AHEAD	222 + 1.5000 5560.4874

CL PIER 3 TO
CL PIER 4

STATION	ELEVATION
CUT LINF	
STA BACK	222 + 1.5000 5560.2424
1 10TH	222 + 6.8500 5560.1590
2 10TH	222 + 12.2000 5560.0746
3 10TH	222 + 17.5500 5560.0443
4 10TH	222 + 22.9000 5560.0953
5 10TH	222 + 28.2500 5560.0813
6 10TH	222 + 33.6000 5560.7046
7 10TH	222 + 34.9500 5560.6049
8 10TH	222 + 44.3000 5560.5024
9 10TH	222 + 49.6500 5560.3979
STA AHEAD	222 + 55.0000 5560.2887

STATION	ELEVATION
CL GIRDER 6	
STA BACK	222 + 1.5000 5560.2911
1 10TH	222 + 6.8500 5560.2487
2 10TH	222 + 12.2000 5560.1233
3 10TH	222 + 17.5500 5560.0751
4 10TH	222 + 22.9000 5560.0448
5 10TH	222 + 28.2500 5560.0591
6 10TH	222 + 33.6000 5560.7833
7 10TH	222 + 34.9500 5560.6536
8 10TH	222 + 44.3000 5560.5511
9 10TH	222 + 49.6500 5560.4457
STA AHEAD	222 + 55.0000 5560.3375

STATION	ELEVATION
CL GIRDER 7	
STA BACK	222 + 1.5000 5560.4186
1 10TH	222 + 6.8500 5560.1362
2 10TH	222 + 12.2000 5560.2598
3 10TH	222 + 17.5500 5560.1626
4 10TH	222 + 22.9000 5560.0715
5 10TH	222 + 28.2500 5560.4776
6 10TH	222 + 33.6000 5560.4066
7 10TH	222 + 34.9500 5560.7011
8 10TH	222 + 44.3000 5560.6786
9 10TH	222 + 49.6500 5560.5732
STA AHEAD	222 + 55.0000 5560.4648

STATION	ELEVATION
N FACE MEDIAN	
1 10TH	222 + 1.5000 5560.4624
2 10TH	222 + 6.8500 5560.3790
3 10TH	222 + 12.2000 5560.2946
4 10TH	222 + 17.5500 5560.2084
5 10TH	222 + 22.9000 5560.1153
6 10TH	222 + 28.2500 5560.0213
7 10TH	222 + 33.6000 5560.2246
8 10TH	222 + 34.9500 5560.2249
9 10TH	222 + 44.3000 5560.7224
0 10TH	222 + 49.6500 5560.6178
STA AHEAD	222 + 55.0000 5560.4884

STATION	ELEVATION
CL 6TH AVE.	
STA BACK	222 + 1.5000 5560.4424
1 10TH	222 + 6.8500 5560.1999
2 10TH	222 + 12.2000 5560.3146
3 10TH	222 + 17.5500 5560.2263
4 10TH	222 + 22.9000 5560.1353
5 10TH	222 + 28.2500 5560.0413
6 10TH	222 + 33.6000 5560.0446
7 10TH	222 + 38.9500 5560.0449
8 10TH	222 + 44.3000 5560.7424
9 10TH	222 + 49.6500 5560.6370
STA AHEAD	222 + 55.0000 5560.5287

CL PIER 4 TO
CL ABUT 5

STATION	ELEVATION
CUT LINF	
STA BACK	222 + 54.0000 5559.2867
1 10TH	222 + 57.8500 5559.2599
2 10TH	222 + 60.7000 5559.1703
3 10TH	222 + 63.5500 5559.1409
4 10TH	222 + 66.4000 5559.0486
5 10TH	222 + 69.2500 5559.0865
6 10TH	222 + 72.1000 5559.0236
7 10TH	222 + 74.9500 5559.0599
8 10TH	222 + 77.8000 5559.0204
9 10TH	222 + 80.6500 5559.0300
STA AHEAD	222 + 83.5000 5559.0639

STATION	ELEVATION
CL GIRDER 6	
STA BACK	222 + 55.0000 5559.3375
1 10TH	222 + 57.8500 5559.2787
2 10TH	222 + 60.7000 5559.2190
3 10TH	222 + 63.5500 5559.1586
4 10TH	222 + 66.4000 5559.0973
5 10TH	222 + 69.2500 5559.0352
6 10TH	222 + 72.1000 5559.0723
7 10TH	222 + 74.9500 5559.0086
8 10TH	222 + 77.8000 5559.0441
9 10TH	222 + 80.6500 5559.0786
STA AHEAD	222 + 83.5000 5559.1126

STATION	ELEVATION
CL GIRDER 7	
STA BACK	222 + 55.0000 5560.4650
1 10TH	222 + 57.8500 5560.4062
2 10TH	222 + 60.7000 5560.3465
3 10TH	222 + 63.5500 5560.2861
4 10TH	222 + 66.4000 5560.2248
5 10TH	222 + 69.2500 5560.1627
6 10TH	222 + 72.1000 5560.0998
7 10TH	222 + 74.9500 5560.0361
8 10TH	222 + 77.8000 5560.0716
9 10TH	222 + 80.6500 5560.0063
STA AHEAD	222 + 83.5000 5560.0401

STATION	ELEVATION
N FACE MEDIAN	
1 10TH	222 + 55.0000 5560.5080
2 10TH	222 + 57.8500 5560.4499
3 10TH	222 + 60.7000 5560.3903
4 10TH	222 + 63.5500 5560.3298
5 10TH	222 + 66.4000 5560.2684
6 10TH	222 + 69.2500 5560.2065
7 10TH	222 + 72.1000 5560.1436
8 10TH	222 + 74.9500 5560.0799
9 10TH	222 + 77.8000 5560.0154
0 10TH	222 + 80.6500 5560.0500
STA AHEAD	222 + 83.5000 5560.0839

STATION	ELEVATION
CL 6TH AVE.	
STA BACK	222 + 55.0000 5560.5287
1 10TH	222 + 57.8500 5560.4699
2 10TH	22

AS CONSTRUCTED
NO NO REVISIONS DATE 10/14/82

FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
7	COLORADO 0006-6(2)	15	

REVISIONS	

STR. F-16-EP E.W.
U006-6(2)
DES. BY SS
DET. BY JDB
INPUT BY TDB L-PS-71
ELEV. ARE TOP OF
CONC. DECK

INPUT DATA FOR BRIDGE F-16-EP
POT = 221 + 14.5000 ALPHA = 0 0 0.00 ROWY = 54.6647 00 = 1.0000
PI = 222 + 8.0000 EPI = 5563.6300 VC = 500 0AM = -4.0000
TYPE = 1 SLOPE = -0.0150

CL ABUT 1 TO
CL PIER 2

STATION	ELEVATION
CL 6TH AVE. STA BACK	221 + 15.5000 5561.4188
1 10TH	221 + 18.7500 5561.3037
2 10TH	221 + 22.0000 5561.3708
3 10TH	221 + 25.2500 5561.7469
4 10TH	221 + 28.5000 5561.3919
5 10TH	221 + 31.7500 5561.2958
6 10TH	221 + 35.0000 5561.7687
7 10TH	221 + 38.2500 5561.9466
8 10TH	221 + 41.5000 5561.2114
9 10TH	221 + 44.7500 5561.1811
STA AHEAD	221 + 48.0000 5561.1408

STATION	ELEVATION
S FACE MEDIAN STA BACK	221 + 15.5000 5561.3955
1 10TH	221 + 18.7500 5561.3727
2 10TH	221 + 22.0000 5561.1508
3 10TH	221 + 25.2500 5561.3769
4 10TH	221 + 28.5000 5561.3019
5 10TH	221 + 31.7500 5561.2758
6 10TH	221 + 35.0000 5561.7488
7 10TH	221 + 38.2500 5561.9267
8 10TH	221 + 41.5000 5561.1914
9 10TH	221 + 44.7500 5561.1611
STA AHEAD	221 + 48.0000 5561.1208

STATION	ELEVATION
CL GIRDER 1 STA BACK	221 + 14.5000 5561.3517
1 10TH	221 + 17.7500 5561.7929
2 10TH	221 + 21.0000 5561.3070
3 10TH	221 + 24.2500 5561.2831
4 10TH	221 + 27.5000 5561.7581
5 10TH	221 + 30.7500 5561.2321
6 10TH	221 + 34.0000 5561.3450
7 10TH	221 + 37.2500 5561.7168
8 10TH	221 + 40.5000 5561.1476
9 10TH	221 + 43.7500 5561.1174
STA AHEAD	221 + 47.0000 5561.0862

STATION	ELEVATION
CL GIRDER 2 STA BACK	221 + 14.5000 5561.2242
1 10TH	221 + 17.7500 5561.7924
2 10TH	221 + 21.0000 5561.1705
3 10TH	221 + 24.2500 5561.1564
4 10TH	221 + 27.5000 5561.1308
5 10TH	221 + 30.7500 5561.1046
6 10TH	221 + 34.0000 5561.0775
7 10TH	221 + 37.2500 5561.0443
8 10TH	221 + 40.5000 5561.0201
9 10TH	221 + 43.7500 5561.0089
STA AHEAD	221 + 47.0000 5560.9955

STATION	ELEVATION
CUT LINE STA BACK	221 + 15.5000 5561.1755
1 10TH	221 + 18.7500 5561.1537
2 10TH	221 + 22.0000 5561.1308
3 10TH	221 + 25.2500 5561.1069
4 10TH	221 + 28.5000 5561.0819
5 10TH	221 + 31.7500 5561.0558
6 10TH	221 + 35.0000 5561.0287
7 10TH	221 + 38.2500 5561.0006
8 10TH	221 + 41.5000 5560.9714
9 10TH	221 + 44.7500 5560.9411
STA AHEAD	221 + 48.0000 5560.9098

CL PIER 2 TO
CL PIER 3

STATION	ELEVATION
CL 6TH AVE. STA BACK	221 + 44.0000 5561.1408
1 10TH	221 + 57.2500 5561.0959
2 10TH	221 + 60.5000 5561.0392
3 10TH	221 + 63.7500 5560.9706
4 10TH	221 + 67.0000 5560.9172
5 10TH	221 + 70.2500 5560.8510
6 10TH	221 + 73.5000 5560.7837
7 10TH	221 + 76.7500 5560.7127
8 10TH	221 + 80.0000 5560.6388
9 10TH	221 + 83.2500 5560.5620
STA AHEAD	222 + 1.5000 5560.4824

STATION	ELEVATION
S FACE MEDIAN STA BACK	221 + 44.0000 5561.1298
1 10TH	221 + 57.2500 5561.0759
2 10TH	221 + 60.5000 5561.0192
3 10TH	221 + 63.7500 5560.9506
4 10TH	221 + 67.0000 5560.8972
5 10TH	221 + 70.2500 5560.8310
6 10TH	221 + 73.5000 5560.7637
7 10TH	221 + 76.7500 5560.6898
8 10TH	221 + 80.0000 5560.6108
9 10TH	221 + 83.2500 5560.5370
STA AHEAD	222 + 1.5000 5560.4624

STATION	ELEVATION
CL GIRDER 1 STA BACK	221 + 44.0000 5561.0860
1 10TH	221 + 57.2500 5561.0392
2 10TH	221 + 60.5000 5560.9755
3 10TH	221 + 63.7500 5560.9159
4 10TH	221 + 67.0000 5560.8534
5 10TH	221 + 70.2500 5560.7881
6 10TH	221 + 73.5000 5560.7190
7 10TH	221 + 76.7500 5560.6499
8 10TH	221 + 80.0000 5560.5790
9 10TH	221 + 83.2500 5560.5083
STA AHEAD	222 + 1.5000 5560.4384

STATION	ELEVATION
CL GIRDER 2 STA BACK	221 + 44.0000 5560.9545
1 10TH	221 + 57.2500 5560.9047
2 10TH	221 + 60.5000 5560.8480
3 10TH	221 + 63.7500 5560.7884
4 10TH	221 + 67.0000 5560.7259
5 10TH	221 + 70.2500 5560.6606
6 10TH	221 + 73.5000 5560.5924
7 10TH	221 + 76.7500 5560.5214
8 10TH	221 + 80.0000 5560.4475
9 10TH	221 + 83.2500 5560.3708
STA AHEAD	222 + 1.5000 5560.2911

STATION	ELEVATION
CUT LINE STA BACK	221 + 44.0000 5560.9098
1 10TH	221 + 57.2500 5560.8559
2 10TH	221 + 60.5000 5560.7992
3 10TH	221 + 63.7500 5560.7396
4 10TH	221 + 67.0000 5560.6772
5 10TH	221 + 70.2500 5560.6119
6 10TH	221 + 73.5000 5560.5437
7 10TH	221 + 76.7500 5560.4727
8 10TH	221 + 80.0000 5560.3988
9 10TH	221 + 83.2500 5560.3220
STA AHEAD	222 + 1.5000 5560.2424

CL PIER 3 TO
CL PIER 4

STATION	ELEVATION
CL 6TH AVE. STA BACK	222 + 1.5000 5560.4424
1 10TH	222 + 4.7500 5560.1999
2 10TH	222 + 8.0000 5560.3148
3 10TH	222 + 11.2500 5560.2263
4 10TH	222 + 14.5000 5560.1353
5 10TH	222 + 17.7500 5560.0413
6 10TH	222 + 21.0000 5559.9446
7 10TH	222 + 24.2500 5559.8449
8 10TH	222 + 27.5000 5559.7424
9 10TH	222 + 30.7500 5559.6370
STA AHEAD	222 + 34.0000 5559.5287

STATION	ELEVATION
S FACE MEDIAN STA BACK	222 + 1.5000 5560.4674
1 10TH	222 + 4.7500 5560.3799
2 10TH	222 + 8.0000 5560.2946
3 10TH	222 + 11.2500 5560.2004
4 10TH	222 + 14.5000 5560.1193
5 10TH	222 + 17.7500 5560.0413
6 10TH	222 + 21.0000 5559.9646
7 10TH	222 + 24.2500 5559.8849
8 10TH	222 + 27.5000 5559.8024
9 10TH	222 + 30.7500 5559.7174
STA AHEAD	222 + 34.0000 5559.6308

STATION	ELEVATION
CL GIRDER 1 STA BACK	222 + 1.5000 5560.4186
1 10TH	222 + 4.7500 5560.3162
2 10TH	222 + 8.0000 5560.2508
3 10TH	222 + 11.2500 5560.1826
4 10TH	222 + 14.5000 5560.1115
5 10TH	222 + 17.7500 5559.9776
6 10TH	222 + 21.0000 5559.8889
7 10TH	222 + 24.2500 5559.7911
8 10TH	222 + 27.5000 5559.6796
9 10TH	222 + 30.7500 5559.5732
STA AHEAD	222 + 34.0000 5559.4650

STATION	ELEVATION
CL GIRDER 2 STA BACK	222 + 1.5000 5560.2911
1 10TH	222 + 4.7500 5560.2087
2 10TH	222 + 8.0000 5560.1233
3 10TH	222 + 11.2500 5560.0351
4 10TH	222 + 14.5000 5559.9440
5 10TH	222 + 17.7500 5559.8501
6 10TH	222 + 21.0000 5559.7533
7 10TH	222 + 24.2500 5559.6534
8 10TH	222 + 27.5000 5559.5511
9 10TH	222 + 30.7500 5559.4457
STA AHEAD	222 + 34.0000 5559.3375

STATION	ELEVATION
CUT LINE STA BACK	222 + 1.5000 5560.2424
1 10TH	222 + 4.7500 5560.1599
2 10TH	222 + 8.0000 5560.0746
3 10TH	222 + 11.2500 5559.9863
4 10TH	222 + 14.5000 5559.8953
5 10TH	222 + 17.7500 5559.8013
6 10TH	222 + 21.0000 5559.7046
7 10TH	222 + 24.2500 5559.6049
8 10TH	222 + 27.5000 5559.5024
9 10TH	222 + 30.7500 5559.3970
STA AHEAD	222 + 34.0000 5559.2887

CL PIER 4 TO
CL ABUT 5

STATION	ELEVATION
CL 6TH AVE. STA BACK	222 + 55.0000 5559.3287
1 10TH	222 + 58.2500 5559.2600
2 10TH	222 + 61.5000 5559.1103
3 10TH	222 + 64.7500 5559.3498
4 10TH	222 + 68.0000 5559.2886
5 10TH	222 + 71.2500 5559.2265
6 10TH	222 + 74.5000 5559.1636
7 10TH	222 + 77.7500 5559.0999
8 10TH	222 + 81.0000 5559.0370
9 10TH	222 + 84.2500 5558.9719
STA AHEAD	222 + 87.5000 5558.9019

STATION	ELEVATION
S FACE MEDIAN STA BACK	222 + 55.0000 5559.5088
1 10TH	222 + 58.2500 5559.4499
2 10TH	222 + 61.5000 5559.3903
3 10TH	222 + 64.7500 5559.3298
4 10TH	222 + 68.0000 5559.2686
5 10TH	222 + 71.2500 5559.2065
6 10TH	222 + 74.5000 5559.1436
7 10TH	222 + 77.7500 5559.0799
8 10TH	222 + 81.0000 5559.0154
9 10TH	222 + 84.2500 5558.9500
STA AHEAD	222 + 87.5000 5558.8839

STATION	ELEVATION
CL GIRDER 1 STA BACK	222 + 55.0000 5559.4656
1 10TH	222 + 58.2500 5559.4062
2 10TH	222 + 61.5000 5559.3469
3 10TH	222 + 64.7500 5559.2861
4 10TH	222 + 68.0000 5559.2248
5 10TH	222 + 71.2500 5559.1627
6 10TH	222 + 74.5000 5559.0998
7 10TH	222 + 77.7500 5559.0361
8 10TH	222 + 81.0000 5558.9716
9 10TH	222 + 84.2500 5558.9063
STA AHEAD	222 + 87.5000 5558.8401

STATION	ELEVATION
CL GIRDER 2 STA BACK	222 + 55.0000 5559.3375
1 10TH	222 + 58.2500 5559.2787
2 10TH	222 + 61.5000 5559.2190
3 10TH	222 + 64.7500 5559.1586
4 10TH	222 + 68.0000 5559.0973
5 10TH	222 + 71.2500 5559.0352
6 10TH	222 + 74.5000 5558.9723
7 10TH	222 + 77.7500 5558.9086
8 10TH	222 + 81.0000 5558.8441
9 10TH	222 + 84.2500 5558.7788
STA AHEAD	222 + 87.5000 5558.7126

STATION	ELEVATION
CUT LINE STA BACK	222 + 55.0000 5559.2487
1 10TH	222 + 58.2500 5559.2299
2 10TH	222 + 61.5000 5559.1703
3 10TH	222 + 64.7500 5559.1098
4 10TH	222 + 68.0000 5559.0486
5 10TH	222 + 71.2500 5558.9865
6 10TH	222 + 74.5000 5558.9236
7 10TH	222 + 77.7500 5558.8599
8 10TH	222 + 81.0000 5558.7954
9 10TH	222 + 84.2500 5558.7300
STA AHEAD	222 + 87.5000 5558.6639

DATE	INITIALS	CHECKED BY	DATE	INITIALS	CHECKED BY

DIVISION OF HIGHWAYS

ELEVATIONS

Approved:	Designer: G. Singh	Detailer: T. Brader
Bridge Engineer	Structure Members	F-16-EP E.B.
Date:	DWG. No. B 5 OF 18	

AS CONSTRUCTED
NO REVISIONS DATE JUL 14 1972

FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	0006-6(2)	16	

REVISIONS	

BAR LIST ~ ABUTMENTS 1 & 5

Mark	No. Req'd	Length	Type	Dimensions	
				h	v
427	24	9'-0"	V		
428	2	31'-8"	Str.		
805	4	31'-8"	Str.		

SUMMARY ~ ABUTMENT 1

279 Lin.Ft. #4 Bar @ 0.668 Lbs./Lin.Ft. = 186 Lbs
127 Lin.Ft. #8 Bar @ 2.670 Lbs./Lin.Ft. = 339 Lbs
Total = 525 Lbs

SUMMARY ~ ABUTMENT 5

279 Lin.Ft. #4 Bar @ 0.668 Lbs./Lin.Ft. = 186 Lbs
127 Lin.Ft. #8 Bar @ 2.670 Lbs./Lin.Ft. = 339 Lbs
Total = 525 Lbs

BAR LIST ~ PIER 3

Mark	No. Req'd	Length	Type	Dimensions	
				h	v
434	44	6'-3"	VIII		
701	36	5'-8"	Str.		
1004	14	4'-9"	Str.		
1006	14	21'-2"	Str.		
1119	20	4'-1 1/2"	XIII		

SUMMARY

275 Lin.Ft. #4 Bar @ 0.668 Lbs./Lin.Ft. = 184 Lbs
204 Lin.Ft. #7 Bar @ 2.044 Lbs./Lin.Ft. = 417 Lbs
363 Lin.Ft. #10 Bar @ 4.303 Lbs./Lin.Ft. = 1,562 Lbs
85 Lin.Ft. #11 Bar @ 5.313 Lbs./Lin.Ft. = 441 Lbs
Total = 2,604 Lbs

BAR LIST ~ SUPERSTRUCTURE

Mark	No. Req'd	Length	Type	Dimensions	
				h	v
401	27	4'-8"	I	0'-10"	1'-2"
402	85	4'-4"	II	2'-2"	1'-1"
403	48	4'-10"	VI	0'-8"	1'-10"
404	32	5'-9"	II	1'-1"	2'-4"
405	36	6'-1"			2'-6"
406	20	6'-9"			2'-10"
407	16	7'-5"			3'-2"
408	16	8'-3"			3'-7"
409	16	9'-3"			4'-1"
410	40	9'-3"			4'-1"
411	40	8'-3"			3'-7"
412	40	7'-5"			3'-2"
413	24	6'-9"			2'-10"
414	32	6'-5"			2'-8"
415	120	6'-1"			2'-6"
416	40	6'-5"			2'-8"
417	24	7'-1"			3'-0"
418	40	7'-11"			3'-5"
419	40	8'-11"			3'-11"
420	40	10'-1"			4'-6"
421	16	9'-3"			4'-1"
422	16	8'-3"			3'-7"
423	16	7'-5"			3'-2"
424	20	6'-9"			2'-10"
425	28	6'-1"			2'-6"
426	16	5'-9"	II	1'-1"	2'-4"
429	60	11'-1"	VII	1'-9"	4'-4"
430	12	34'-4"	Str.		
431	8	9'-2"	II	1'-9"	3'-8 1/2"
432	4	10'-2"	II	1'-9"	4'-2 1/2"
433	30	12'-1"	VI	1'-9"	4'-10"

SUMMARY

7,610 Lin.Ft. #4 Bar @ 0.668 Lbs./Lin.Ft. = 5,083 Lbs
34,004 Lin.Ft. #5 Bar @ 1.043 Lbs./Lin.Ft. = 35,466 Lbs
1,754 Lin.Ft. #8 Bar @ 2.670 Lbs./Lin.Ft. = 4,683 Lbs
936 Lin.Ft. #10 Bar @ 4.303 Lbs./Lin.Ft. = 4,028 Lbs
6,644 Lin.Ft. #11 Bar @ 5.313 Lbs./Lin.Ft. = 35,300 Lbs
Total = 84,560 Lbs

BAR LIST ~ SUPERSTRUCTURE

Mark	No. Req'd	Length	Type	Dimensions	
				h	v
1106	8	25'-4"	Str.		
1107	24	15'-8"	XI	7'-10"	1'-3"
1108	24	21'-8"	XI	10'-10"	1'-6"
1109	8	28'-4"	Str.		
1110	32	12'-0"	Str.		
1111	24	22'-0"	Str.		
1112	8	32'-0"	Str.		
1113	16	37'-6"	Str.		
1114	16	43'-6"	Str.		
1115	8	26'-0"	Str.		
1116	8	58'-2"	Str.		
1117	8	21'-4"	Str.		
1118	8	24'-4"	Str.		

SUMMARY

7,610 Lin.Ft. #4 Bar @ 0.668 Lbs./Lin.Ft. = 5,083 Lbs
34,004 Lin.Ft. #5 Bar @ 1.043 Lbs./Lin.Ft. = 35,466 Lbs
1,754 Lin.Ft. #8 Bar @ 2.670 Lbs./Lin.Ft. = 4,683 Lbs
936 Lin.Ft. #10 Bar @ 4.303 Lbs./Lin.Ft. = 4,028 Lbs
6,644 Lin.Ft. #11 Bar @ 5.313 Lbs./Lin.Ft. = 35,300 Lbs
Total = 84,560 Lbs

BAR LIST ~ PIER 2

Mark	No. Req'd	Length	Type	Dimensions	
				h	v
434	46	6'-3"	VIII		
701	36	5'-8"	Str.		
1004	14	4'-9"	Str.		
1005	14	22'-4"	Str.		
1119	20	4'-1 1/2"	XIII		

SUMMARY

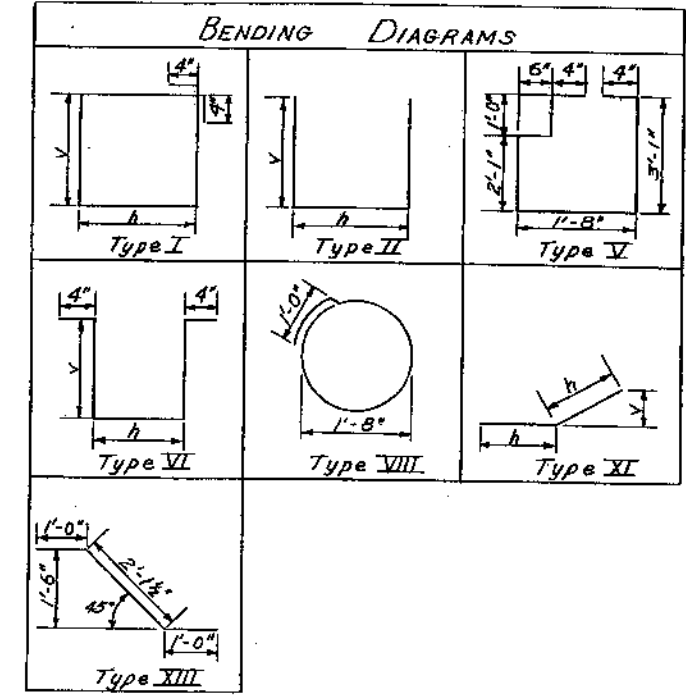
288 Lin.Ft. #4 Bar @ 0.668 Lbs./Lin.Ft. = 192 Lbs
204 Lin.Ft. #7 Bar @ 2.044 Lbs./Lin.Ft. = 417 Lbs
379 Lin.Ft. #10 Bar @ 4.303 Lbs./Lin.Ft. = 1,631 Lbs
83 Lin.Ft. #11 Bar @ 5.313 Lbs./Lin.Ft. = 441 Lbs
Total = 2,681 Lbs

BAR LIST ~ PIER 4

Mark	No. Req'd	Length	Type	Dimensions	
				h	v
434	42	6'-3"	VIII		
701	36	5'-8"	Str.		
1004	14	4'-9"	Str.		
1007	14	20'-10"	Str.		
1119	20	4'-1 1/2"	XIII		

SUMMARY

263 Lin.Ft. #4 Bar @ 0.668 Lbs./Lin.Ft. = 176 Lbs
204 Lin.Ft. #7 Bar @ 2.044 Lbs./Lin.Ft. = 417 Lbs
358 Lin.Ft. #10 Bar @ 4.303 Lbs./Lin.Ft. = 1,540 Lbs
83 Lin.Ft. #11 Bar @ 5.313 Lbs./Lin.Ft. = 441 Lbs
Total = 2,574 Lbs



DESIGNED BY: D.L.G. 3-71
CHECKED BY: A.W.G. 3-71
DATE: 1-71
COMMITTED BY: D.L.G. 3-71
REVISIONS BY: R.P.S. 3-71
DRAWN BY: R.W.G. 3-71

DIVISION OF HIGHWAYS

BAR LIST ~ BAR SUMMARY
BENDING DIAGRAMS

Approved: _____
Bridge Engineer

Designer: G. Singh
Structures Number: F-16-EO
Detailer: R. Schiff
Structures Number: F-16-EP

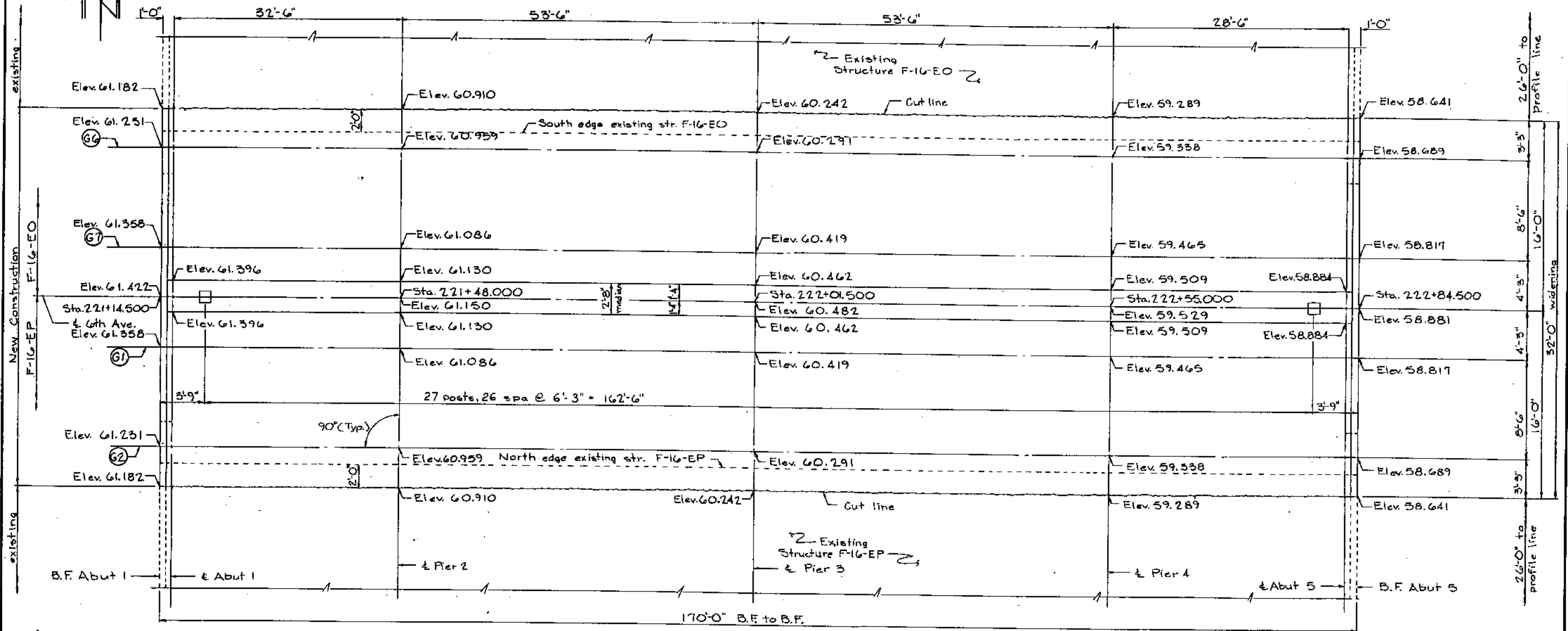
Date: _____
DWG. No. B 6 OF 18

AS ~~CON~~ CONSTRUCTED
 NO DIMENSIONS DATE JUL 1 5 1972

FEDERAL ROAD DESIGN NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
	COLORADO	4006-6(2)	17	
REVISIONS				



DESIGNED BY	DATE	BY	DATE	BY	DATE
BY	7-1-71	BY	7-1-71	BY	7-1-71
BY	7-1-71	BY	7-1-71	BY	7-1-71



CONSTRUCTION LAYOUT
 (Elevs. are at top of conc. deck)
 (Base elev. = 5500.000)

Notes
 Existing bridge rail and posts shall be dismantled from curbs. Salvaged bridge rail shall become property of the Colorado Division of Highways.
 Stations and elevations shown are calculated from the plans for existing structures F-16-EO and F-16-EP. These elevations may be adjusted to meet elevations of the existing structure.

DIVISION OF HIGHWAYS

CONSTRUCTION LAYOUT

Approved:	Designer: G. Singh	Detailer: T. Proder
Bridge Engineer:	Structure Numbers: F-16-EO W.B.	F-16-EP E.B.
Date:	DWG. No. 8 7 OF 18	

AS CONSTRUCTED
NO REVISIONS

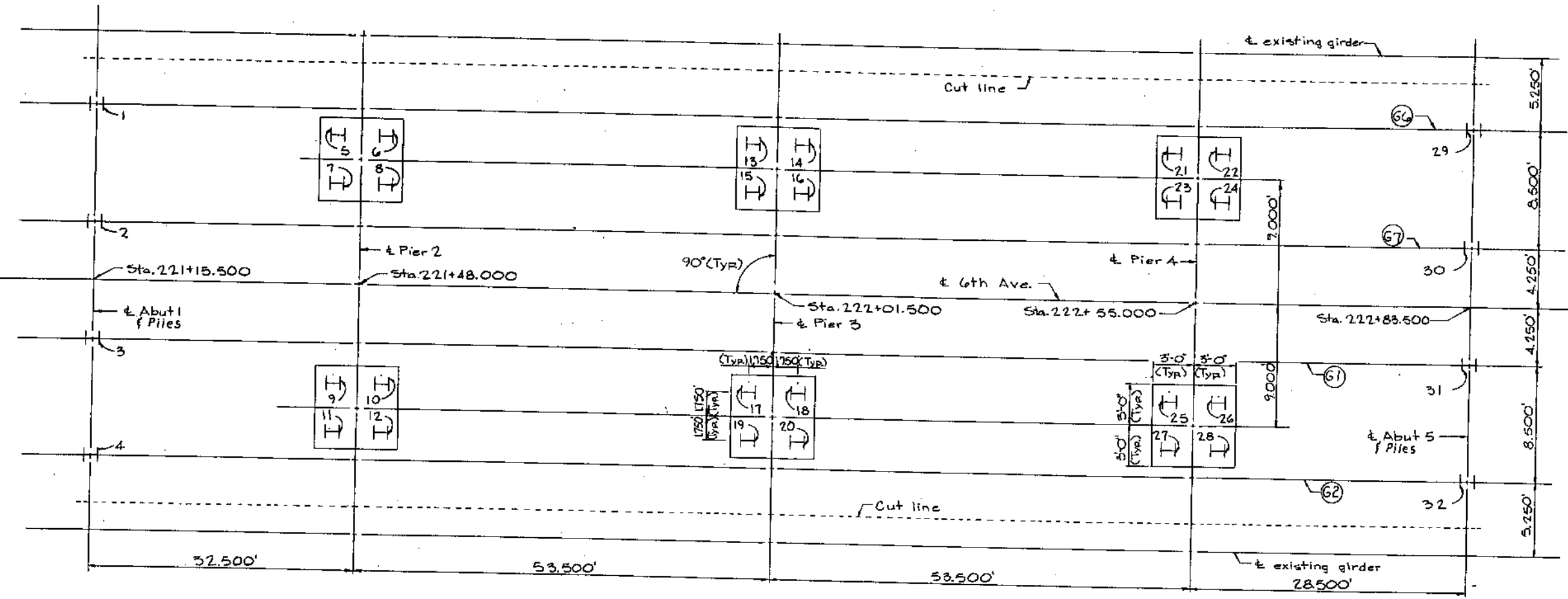
FEDERAL ROAD DISTRICT NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	COLORADO	U006-6(2)	18	

REVISIONS	



F-16-EP F-16-EO

DESIGNED BY	DATE	CHECKED BY	DATE



PILE CUT-OFF ELEVATIONS	
Pile No. Elevation	
1	58.72
2	58.85
3	58.85
4	58.72
5 to 12	32.26
13 to 20	32.26
21 to 28	32.14
29	56.21
30	56.54
31	56.34
32	56.21

Notes
 All piling 10BP42
 Dimensions are at bottom of concrete.

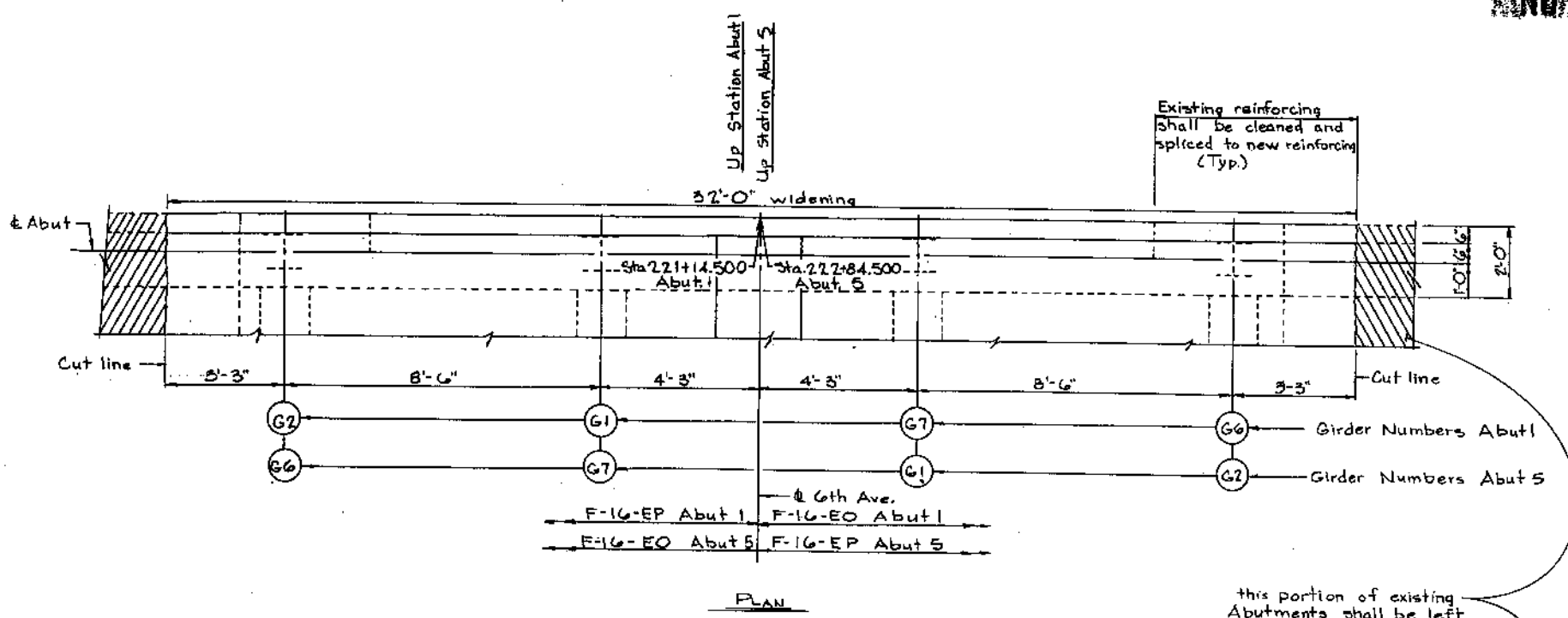
PILING AND FOOTING LAYOUT

DIVISION OF HIGHWAYS	
PILING AND FOOTING LAYOUT	
Approved:	Designer: G. Singh Detailer: T. Prader
Bridge Engineer:	Structure Number: F-16-EP W.B.
Date:	F-16-EP E.B.
	DWG. No. B. 8 OF 18

AS CONSTRUCTED
NO REVISIONS DATE: JUN 24 1972

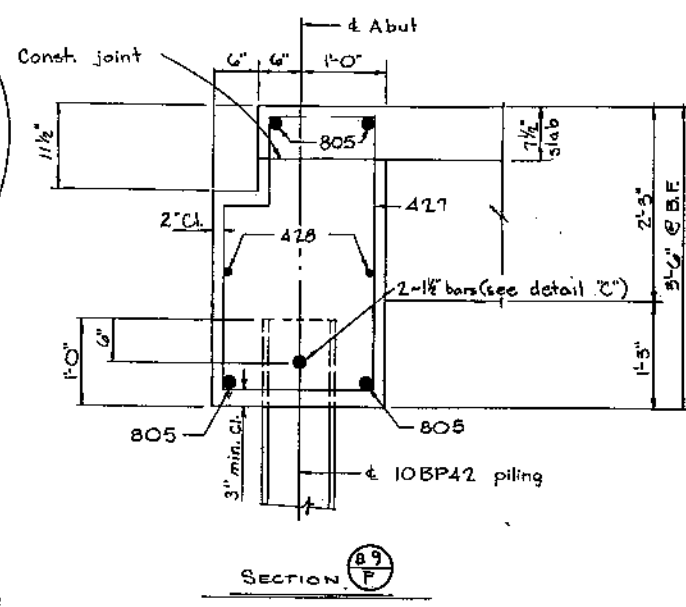
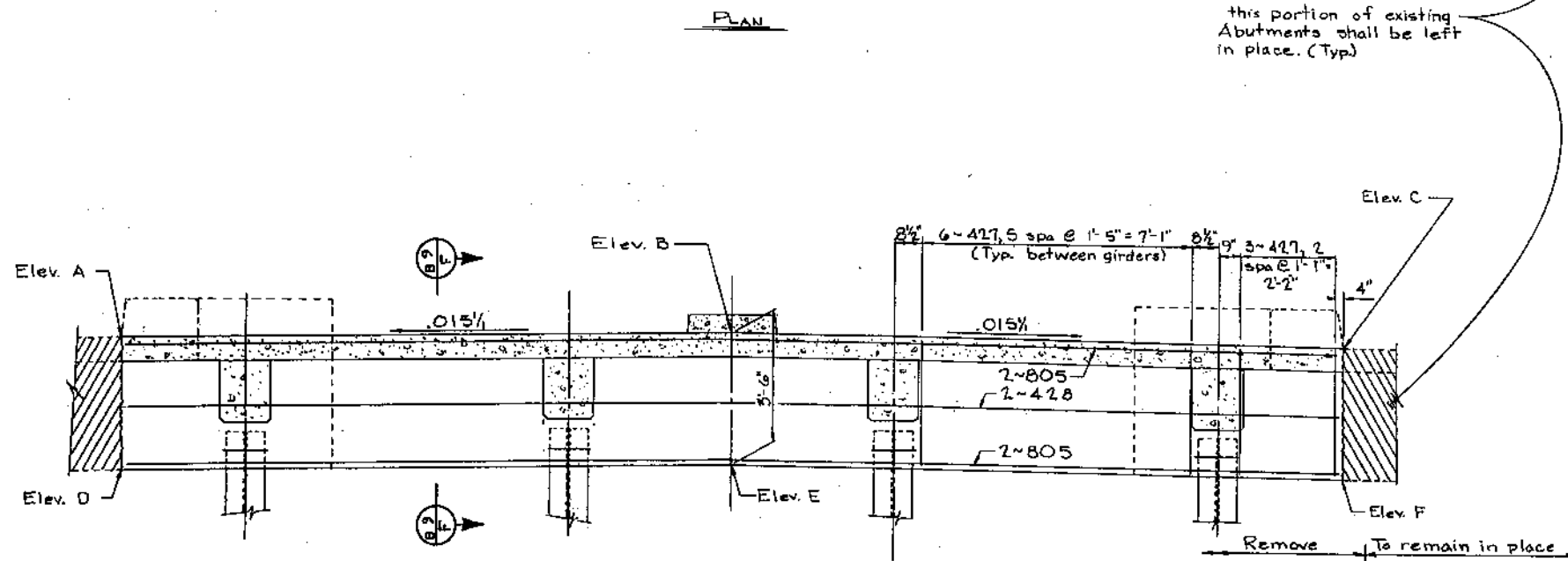
FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
COLORADO	4006-6(2)	19	

REVISIONS	



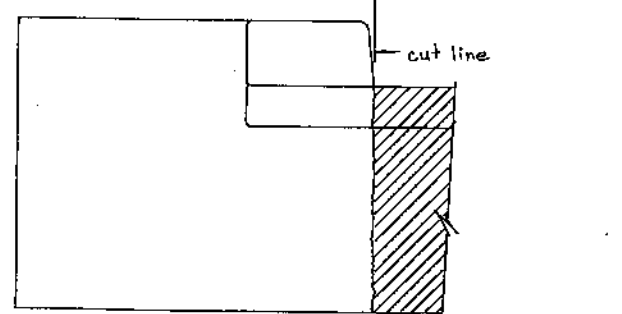
Notes
Abutment caps and girders shall be poured monolithically up to const. joint.
For pile cut-off elevations see Dwg No B.8.

REVISION NO.	DATE	BY	REASON
1	3-27	W.C.	
2	1-11	G.S.	
3	2-11	T.D.B.	



ELEVATIONS*		
	Abut 1	Abut 5
Elev. A	61.182	58.641
Elev. B	61.422	58.881
Elev. C	61.182	58.641
Elev. D	57.682	55.141
Elev. E	57.922	55.381
Elev. F	57.682	55.141

* Elevations are @ B.F.
Base elev. 5500.000



DETAIL OF PORTIONS OF EXISTING STRUCTURE TO BE REMOVED

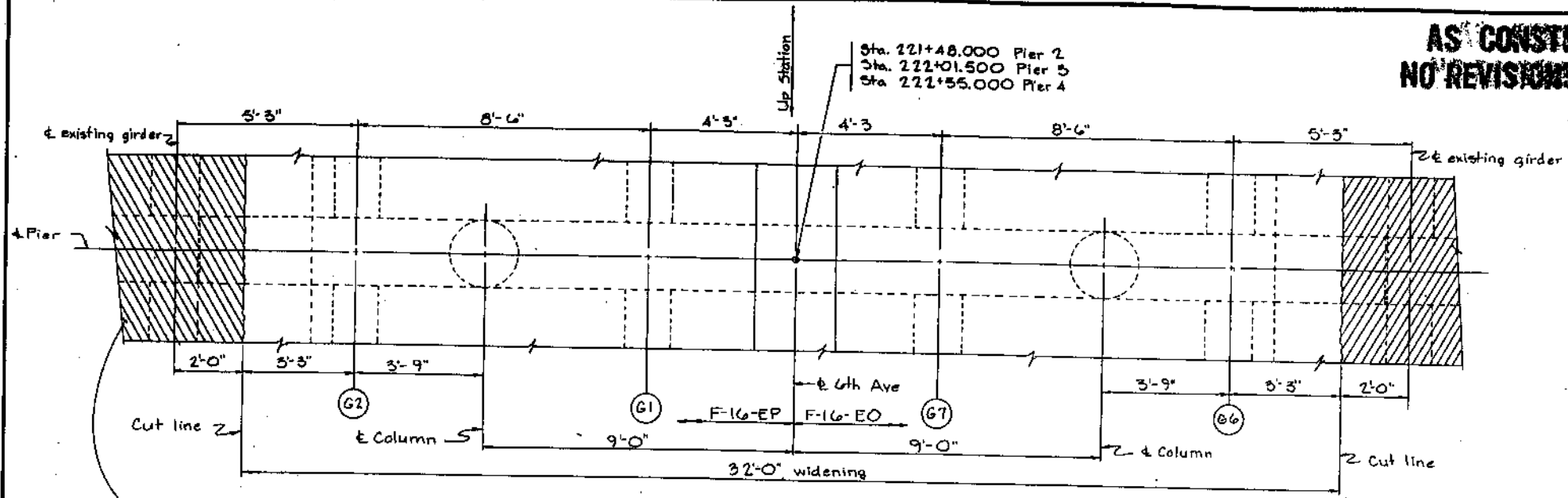
Max. pile load
Abut 1 = 28.5 tons
Abut 5 = 26.0 tons

DIVISION OF HIGHWAYS			
ABUTMENT DETAILS			
Approved:	Designer: G. Singh	Detailer: T. Order	
Bridge Engineer:	Structure Number: F-16-EO	W.B.	
Date:	Structure Number: F-16-EP	E.B.	
	DWG. No. B. 9	OF 18	

AS CONSTRUCTED
NO REVISIONS DATE: APR 14 1952

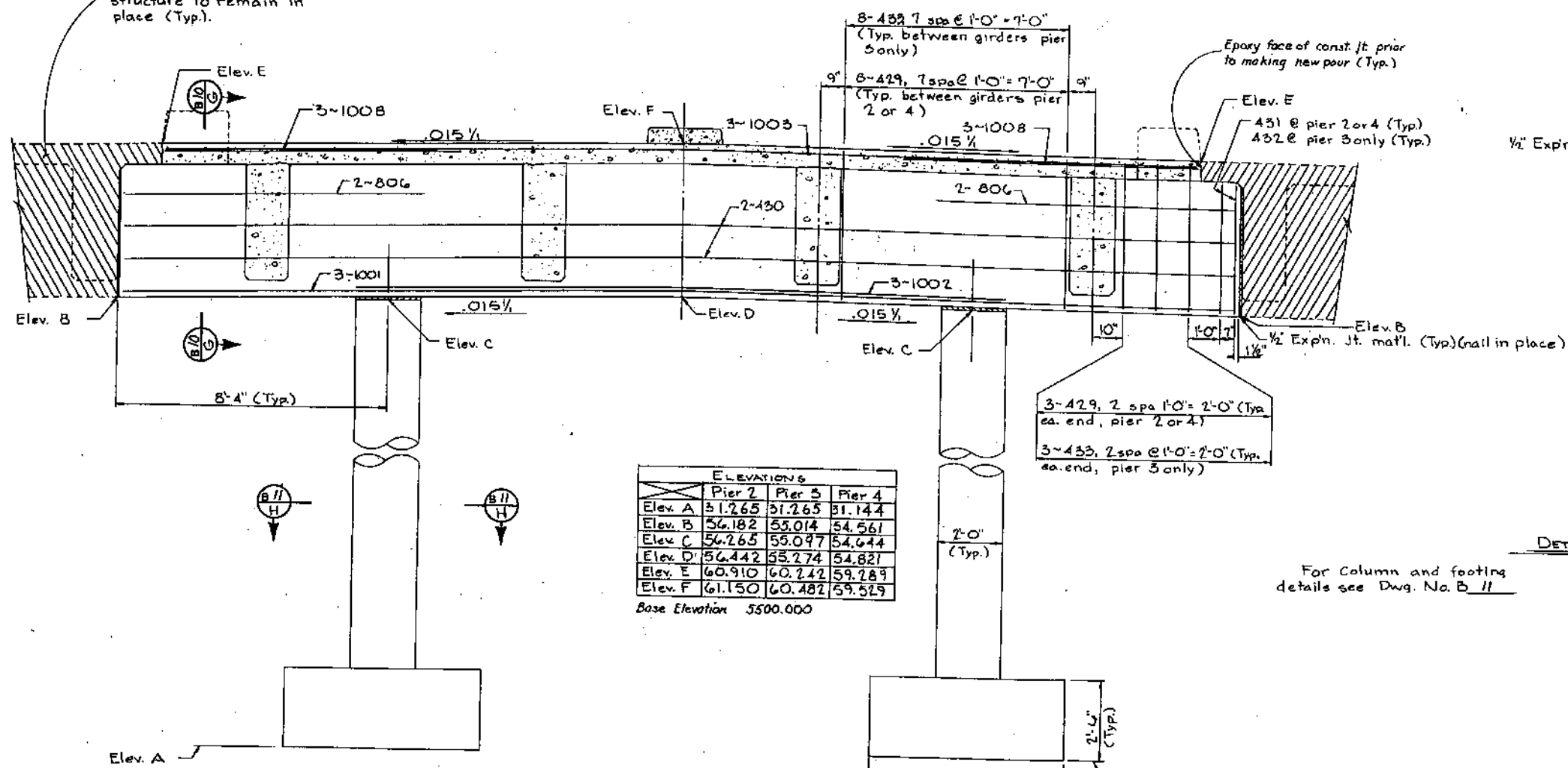
FEDERAL ROAD DISTRICT NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	COLORADO	1006-6(2)	20	

REVISIONS	



PLAN

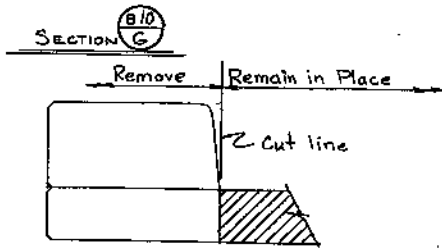
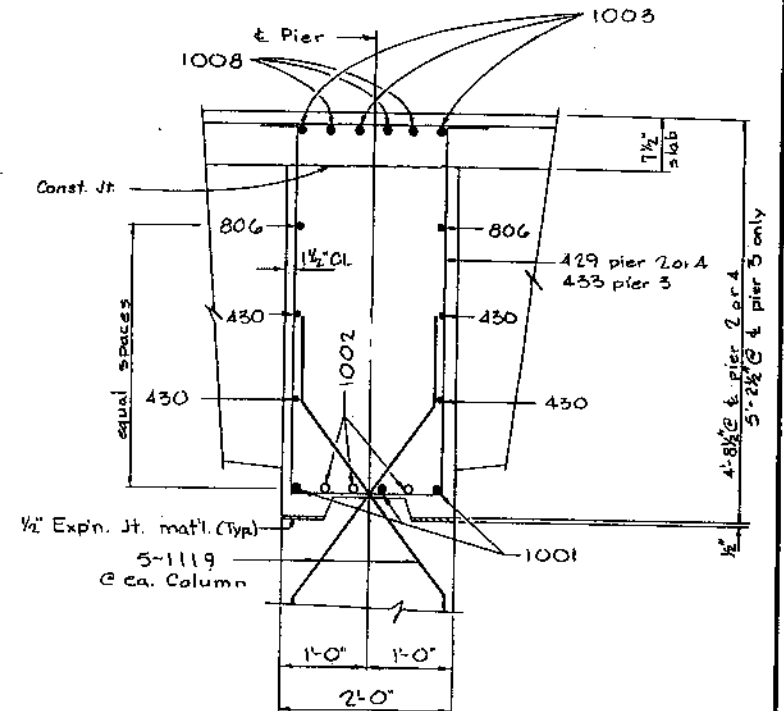
This portion of existing structure to remain in place (Typ.).



ELEVATIONS			
	Pier 2	Pier 3	Pier 4
Elev. A	51.265	51.265	51.144
Elev. B	56.182	55.014	54.561
Elev. C	56.265	55.097	54.644
Elev. D	56.442	55.274	54.821
Elev. E	60.910	60.242	59.289
Elev. F	61.150	60.482	59.529

Base Elevation 5500.000

ELEVATION



DETAIL OF PORTIONS OF EXISTING STRUCTURE TO BE REMOVED

For Column and footing details see Dwg. No. B 11

INITIAL	DATE	CHECKED BY	DATE
DESIGNED BY		QUANTITIES BY	
REVISIONS BY			

DIVISION OF HIGHWAYS			
PIER DETAILS			
Approved:	Designer: G. Singh	Detailer: T. Priddy	
Bridge Engineer	Structure Number: F-16-EO	W. B.	
Date:	F-16-EP	E. B.	
	DWG. No. B 10 OF 18		

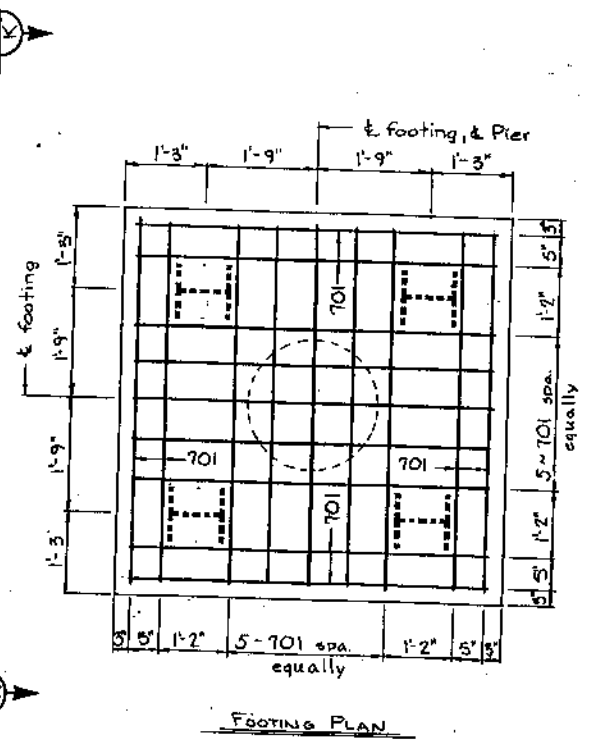
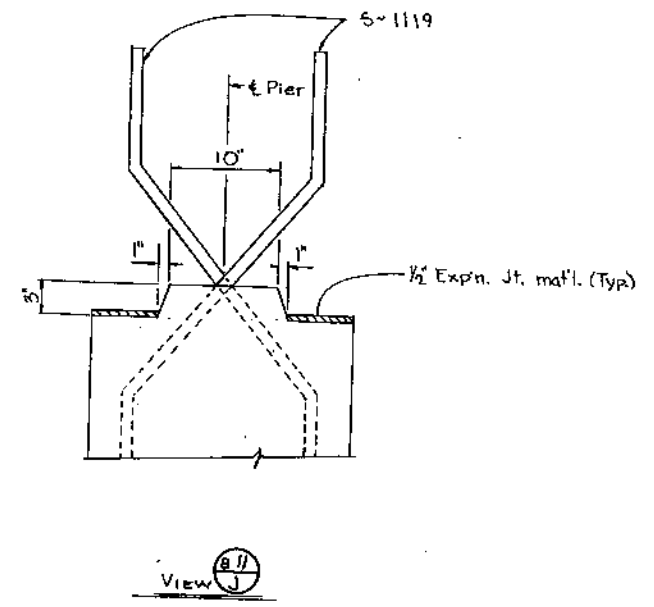
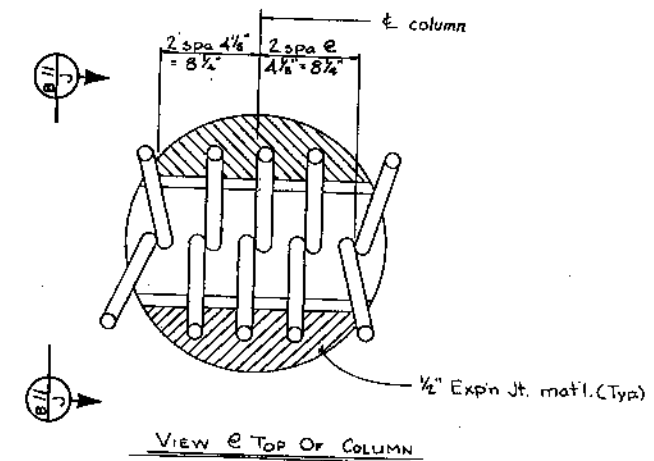
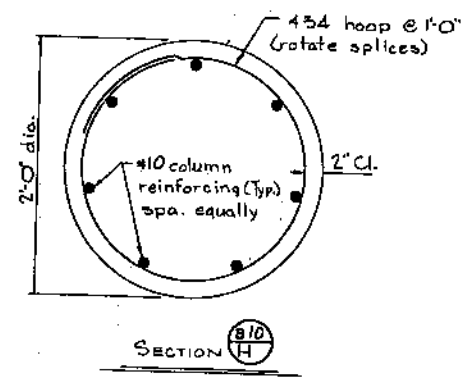
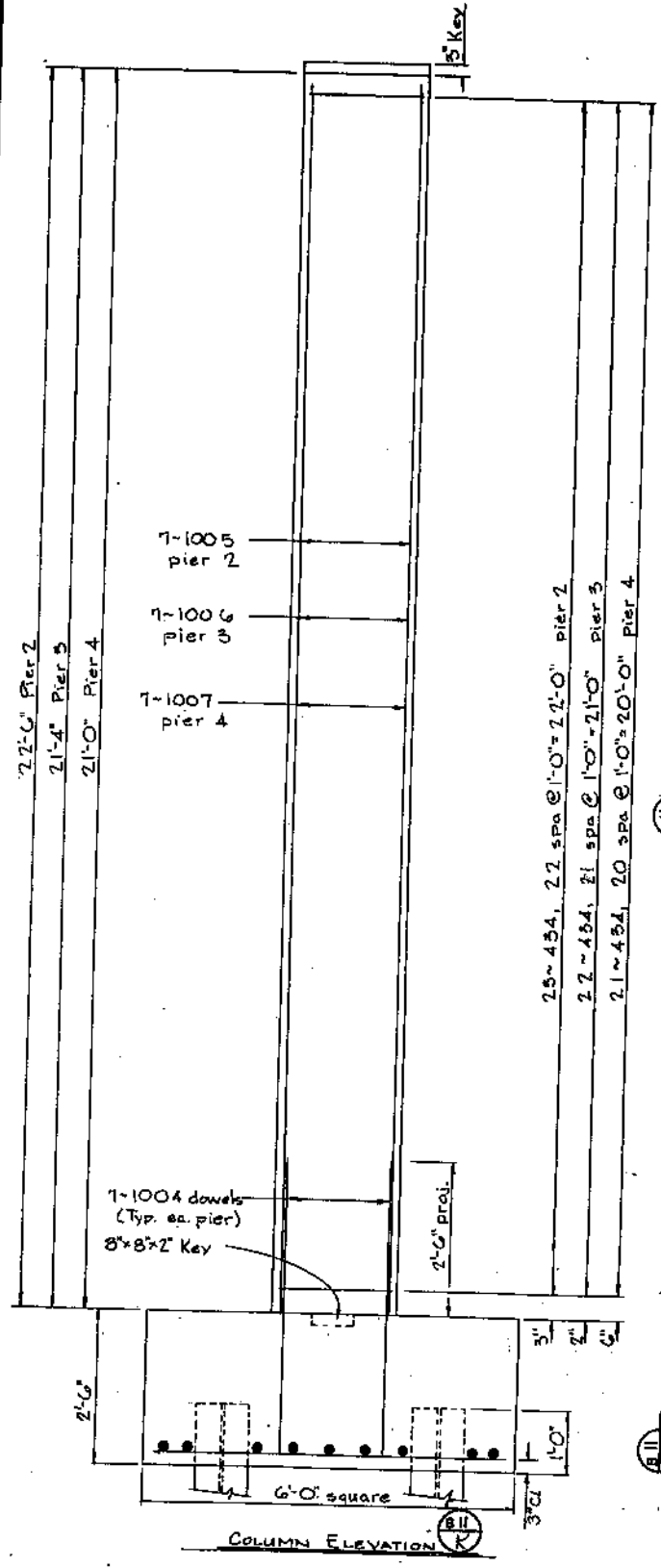
NOT TO SCALE UNLESS OTHERWISE NOTED
 ALL DIMENSIONS IN FEET AND INCHES
 UNLESS OTHERWISE NOTED

AS CONSTRUCTED
NO REVISIONS DATE **JUL 14 1978**

FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	COLORADO	1006-G(2)	21

REVISIONS	

INITIAL	DATE	BY	CHECKED BY	QUANTITY BY	CREATED BY
C.S.	1-11		D.L.R.	V.Z.	J.S.R.
T.D.B.	2-21				



Notes
 Max pile load = 50.5 tons

DIVISION OF HIGHWAYS

PIER DETAILS

Approved: _____
 Bridge Engineer

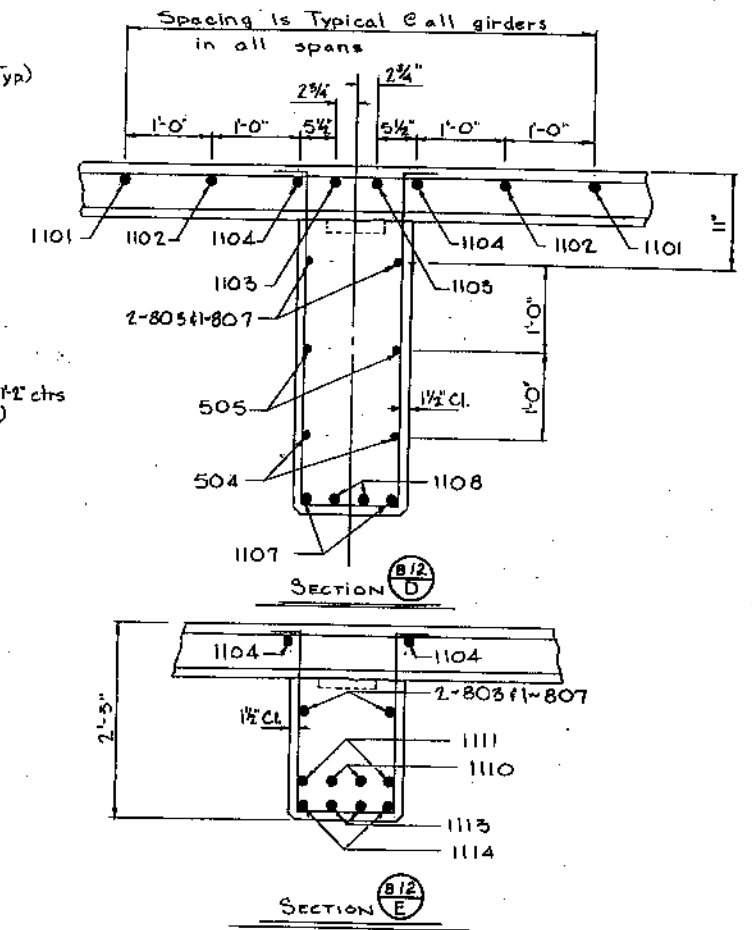
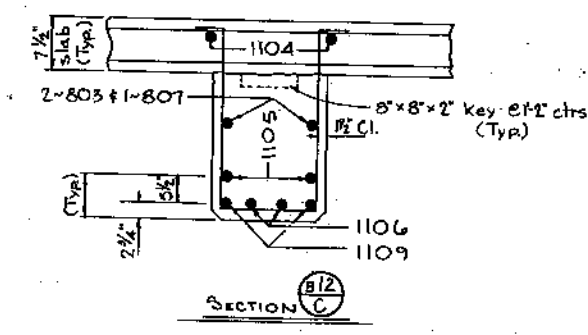
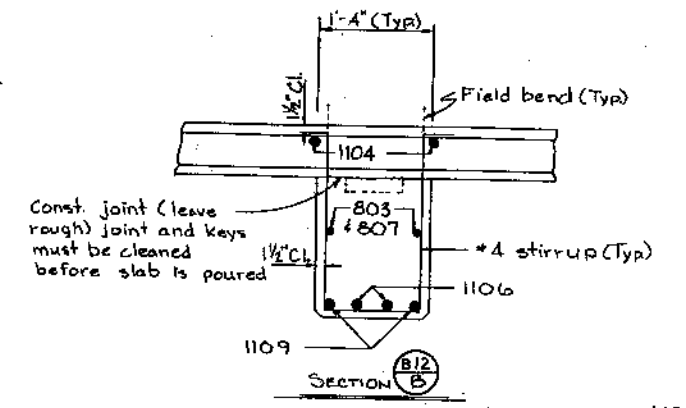
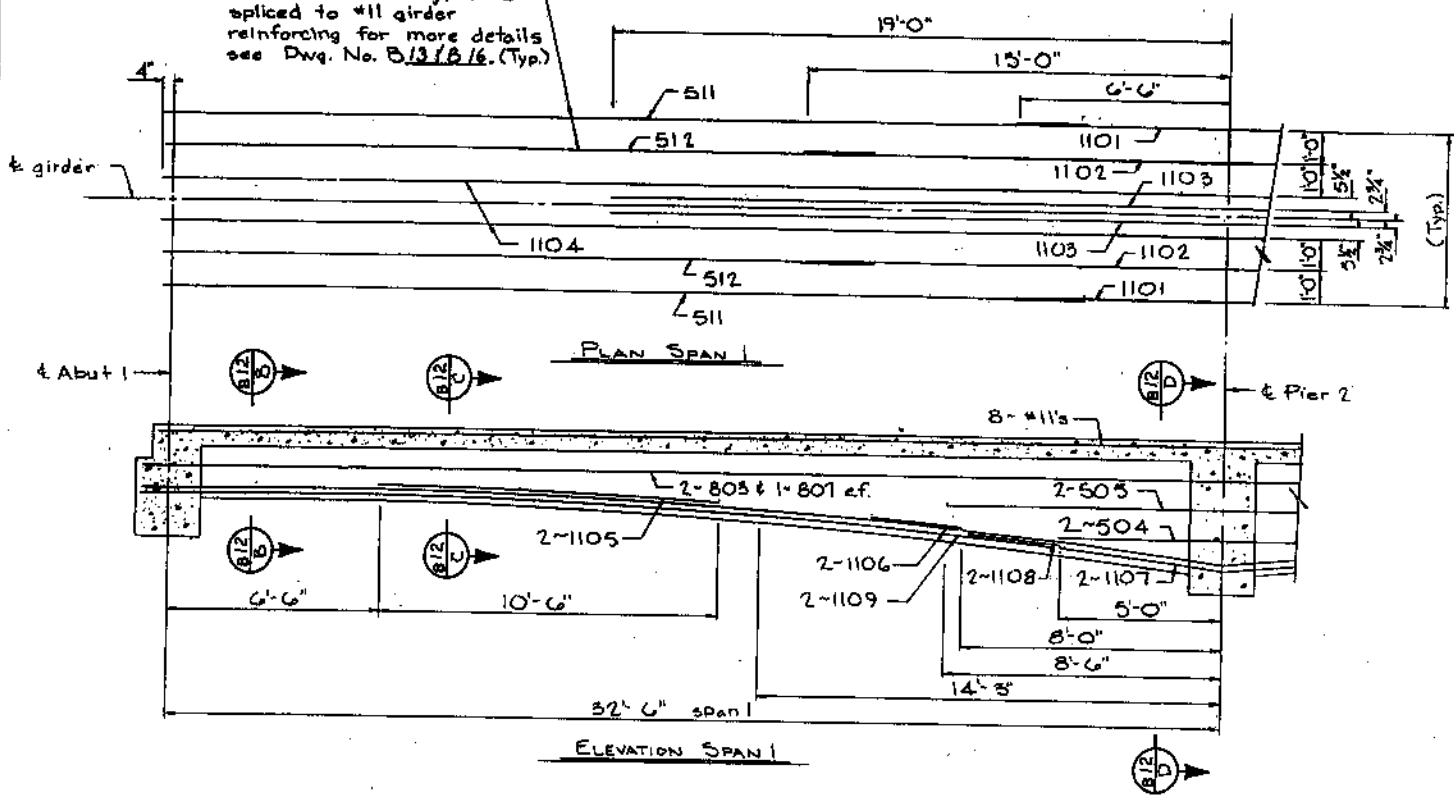
Designer: G. Singh
 Structure Number: F-16-EO W.B.
 Detailer: T. Breder
 DWG. No. B 11 OF 18

AS CONSTRUCTED
NO REVISIONS DATE JUL 14 1952

FEDERAL ROAD DISTRICT NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
	COLORADO	U006-6(2)	22	

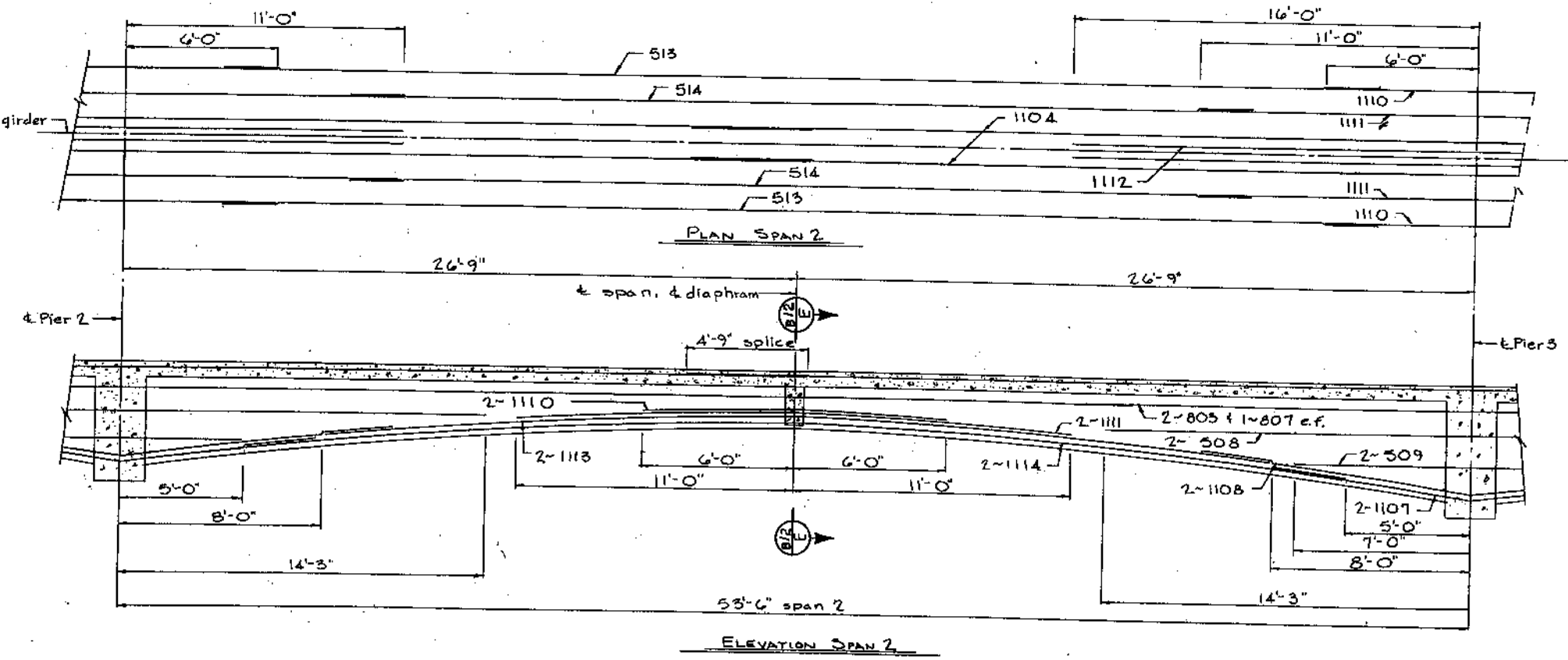
REVISIONS	

*5 slab reinforcing, to be spliced to #11 girder reinforcing for more details see Dwg. No. B-13/B-16. (Typ.)



NOTES
Girder shoring shall remain in place full length in every span until all pours have reached min. strength of 2400 psi in that span. And the slab shall not be poured until the girder pours have reached a minimum strength of 2400 psi.
For stirrup spacing see Dwg. No. B-14.

DESIGNED BY	CHECKED BY	DATE	QUANTITY BY	DESIGNED BY	CHECKED BY	DATE
G.S.	G.S.	1-11	V.Z.	T.D.S.	T.D.S.	2-11
			J.S.R.			

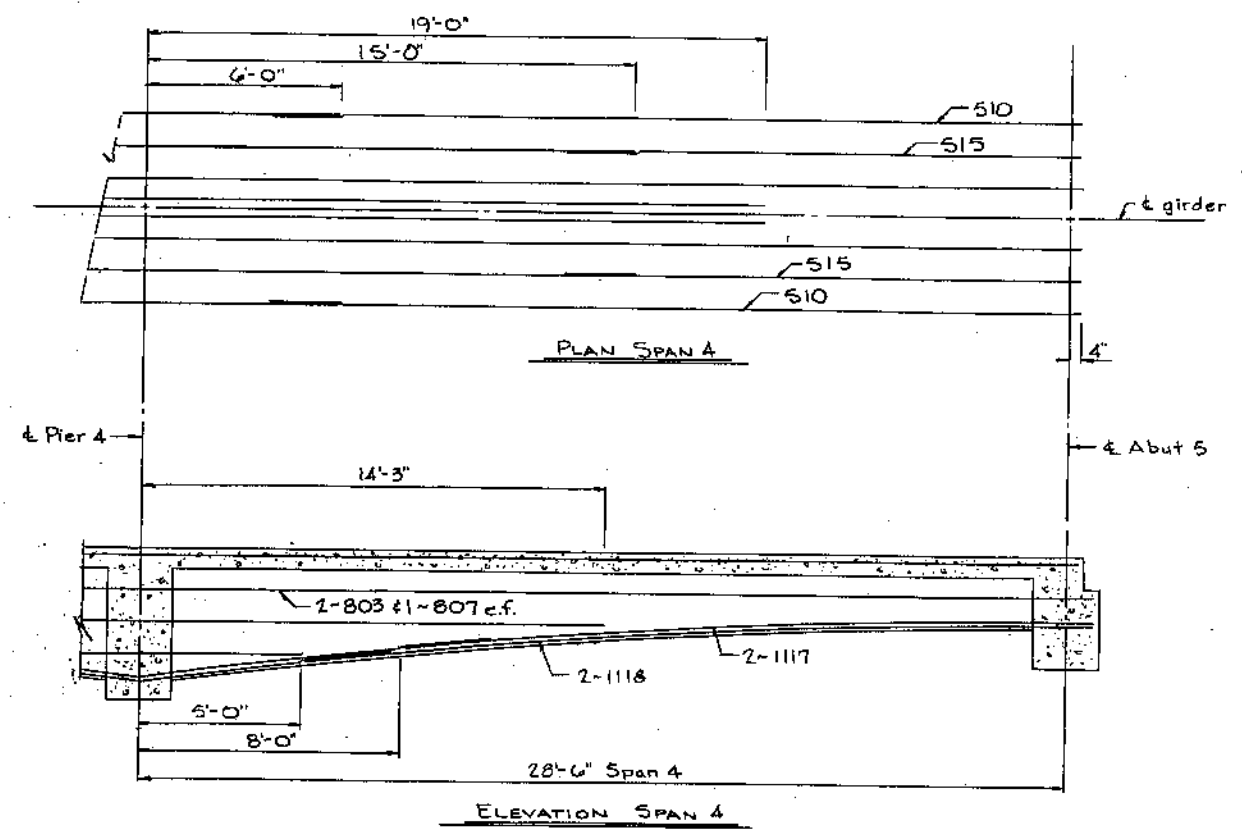
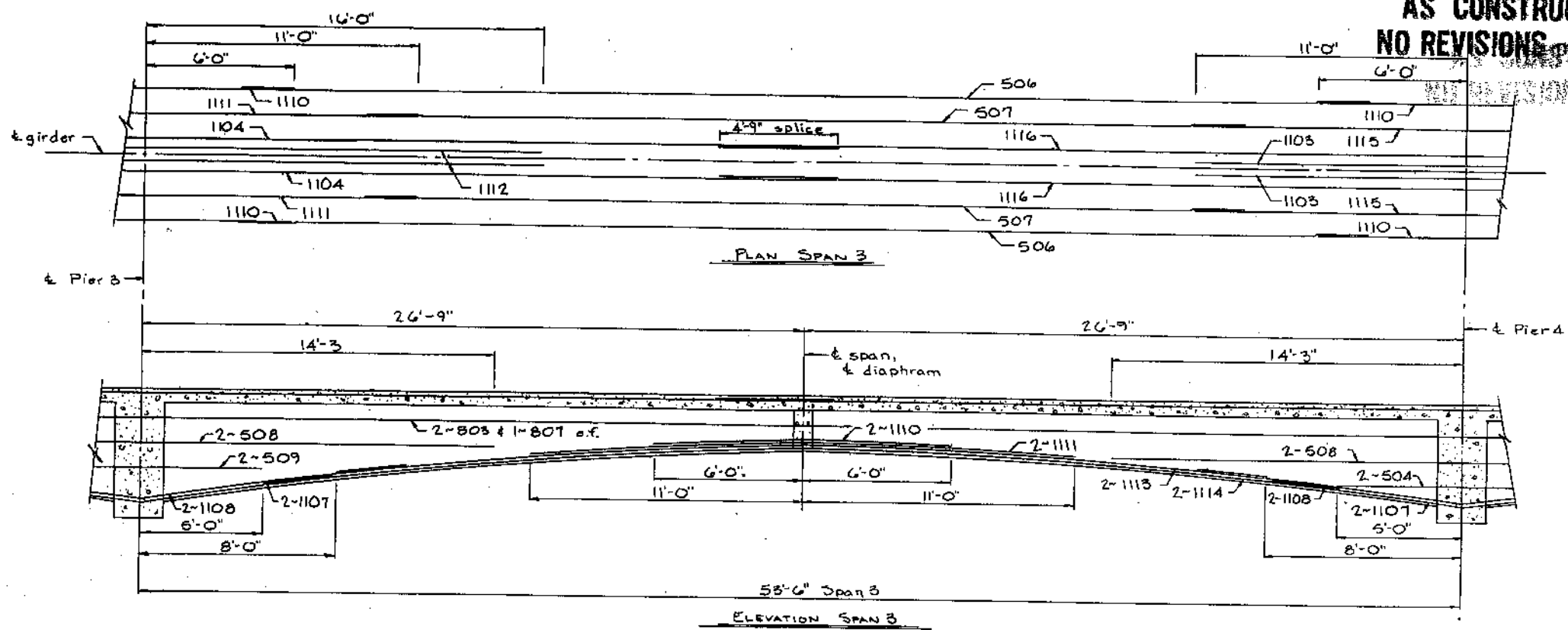


DIVISION OF HIGHWAYS			
GIRDER REINFORCING SPAN 1 No 2			
Approved:	Designer: G. Singh	Detailer: T. Breder	
Bridge Engineer	Structure Number: F-16-EO	W.B.	
Date:	Number: F-16-EP	E.B.	
	DWG. No. B-12	of 18	

AS CONSTRUCTED
NO REVISIONS

FEDERAL ROAD DISTRICT NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
*	COLORADO	U000-6(2)	23	

REVISIONS	



DESIGNED BY	CHECKED BY	DATE	QUANTITIES BY	CHECKED BY	DATE
G.S.	T.C.S.	1-71	V.Z.	J.S.R.	2-71

For notes see Dwg No. B 12

DIVISION OF HIGHWAYS

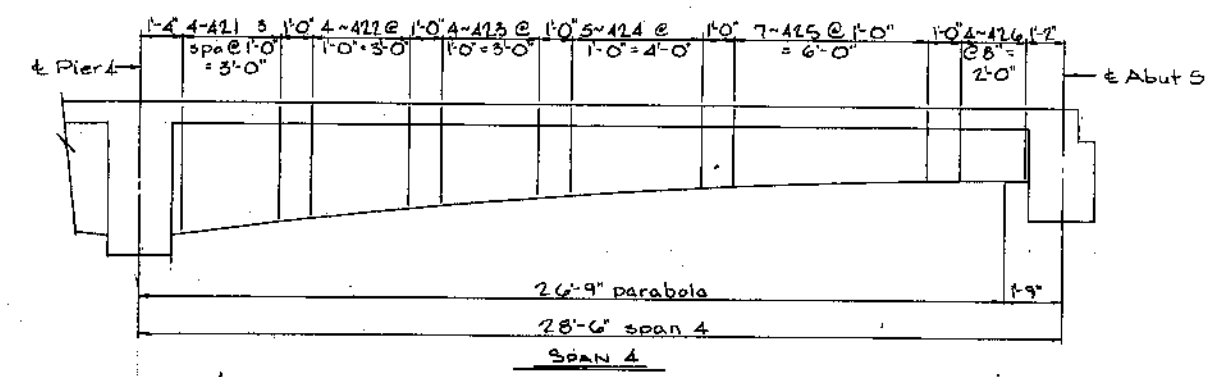
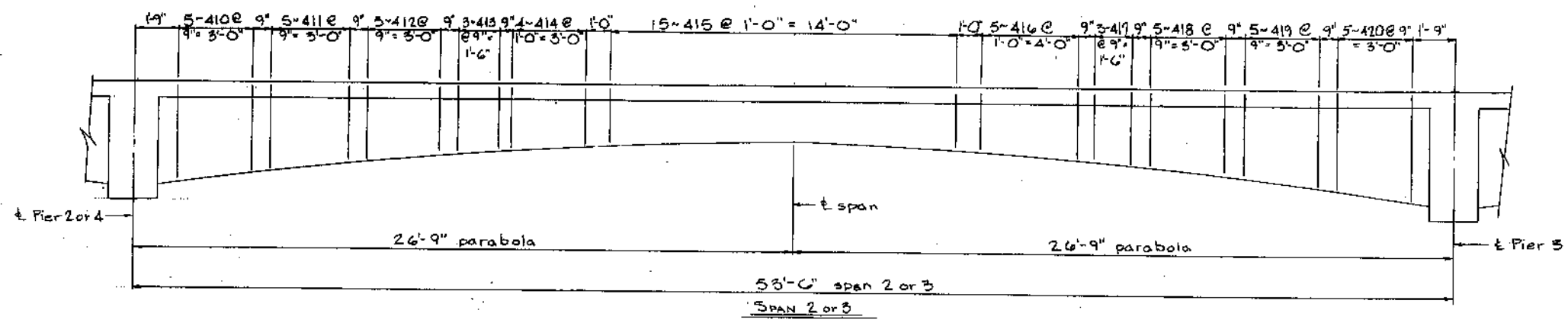
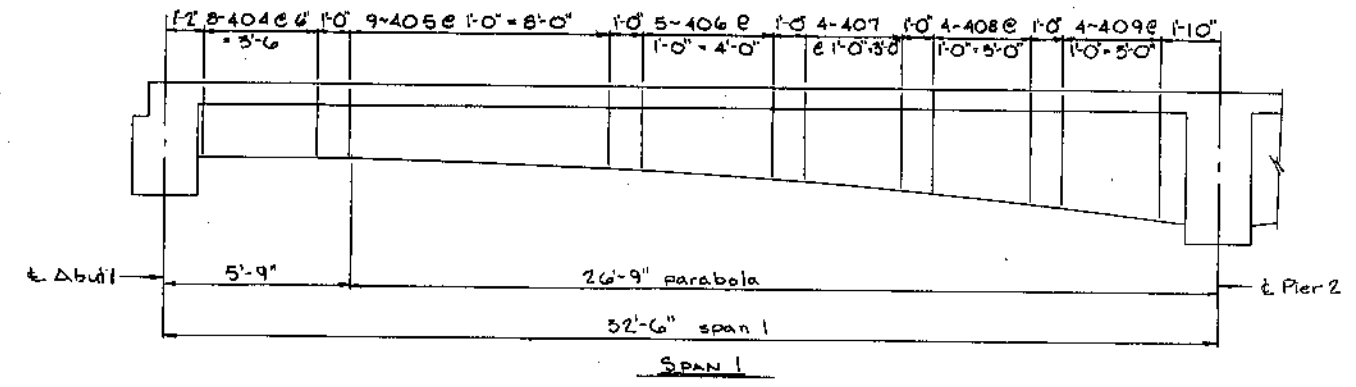
GIRDER REINFORCING
SPAN 3^{no} 4

Approved:	Designer: G. Singh Detailer: T. Orsder
Bridge Engineer:	Structure Numbers: F-16-EO W.B. / F-16-EP E.B.
Date:	DWG. No. B 13 OF 18

AS CONSTRUCTED
NO REVISIONS DATE JUL 14 1974

FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1 COLORADO	U006-6(2)	24	

REVISIONS	



DATE	BY	DESCRIPTION
1-71	D.A.P.	DESIGNED BY
2-71	J.S.R.	CHECKED BY

DIVISION OF HIGHWAYS

GIRDER STIRRUP SPACING

Approved:	Designer: G. Singh	Detailer: T. Breder
Structure Numbers:	F-16-EO W.B.	
Date:	F-16-EP E.B.	
	DWG. No. B 14 OF 18	

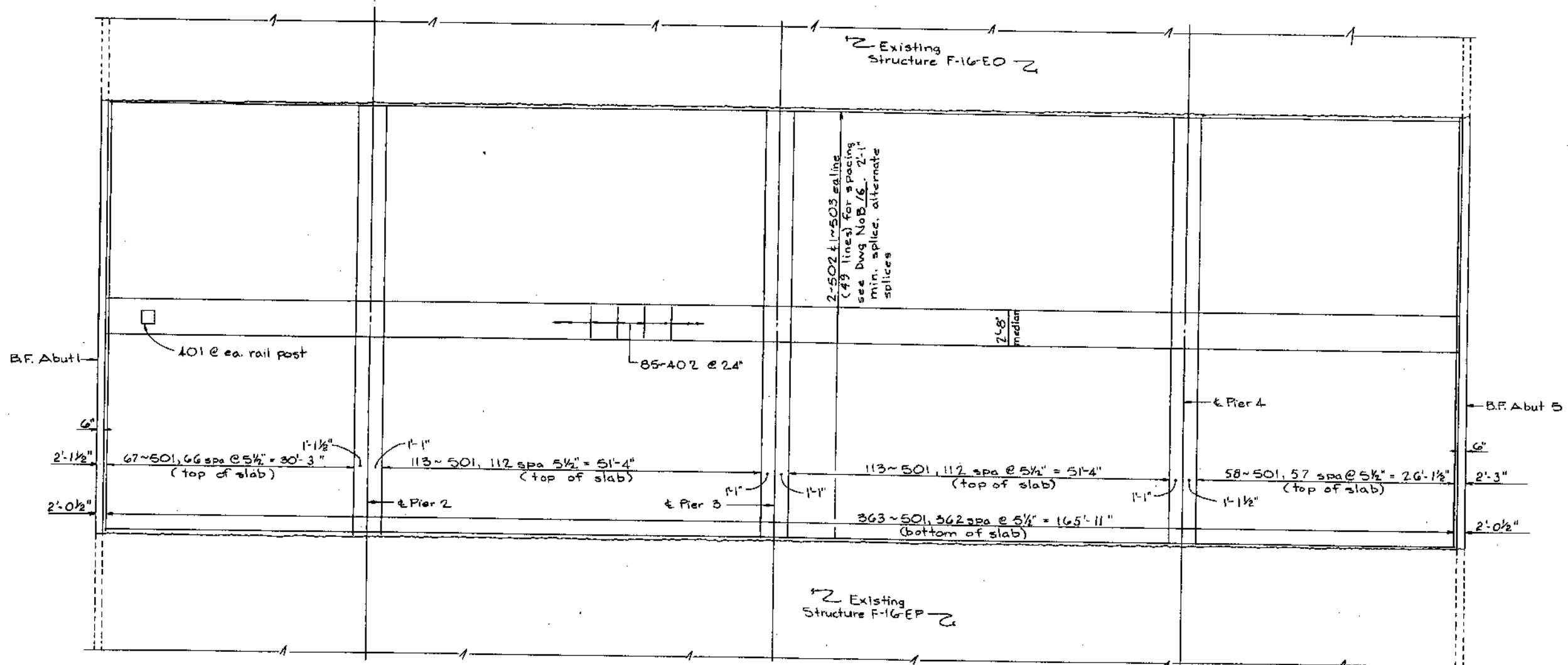
AS CONSTRUCTED
NO REVISIONS DATE: JUL 1 & 1972

FEDERAL ROAD REGION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	1006-6(2)	25	

REVISIONS	

INITIALS	DATE	CHECKED BY

DESIGNED BY	QUANTITIES BY



SLAB REINFORCING

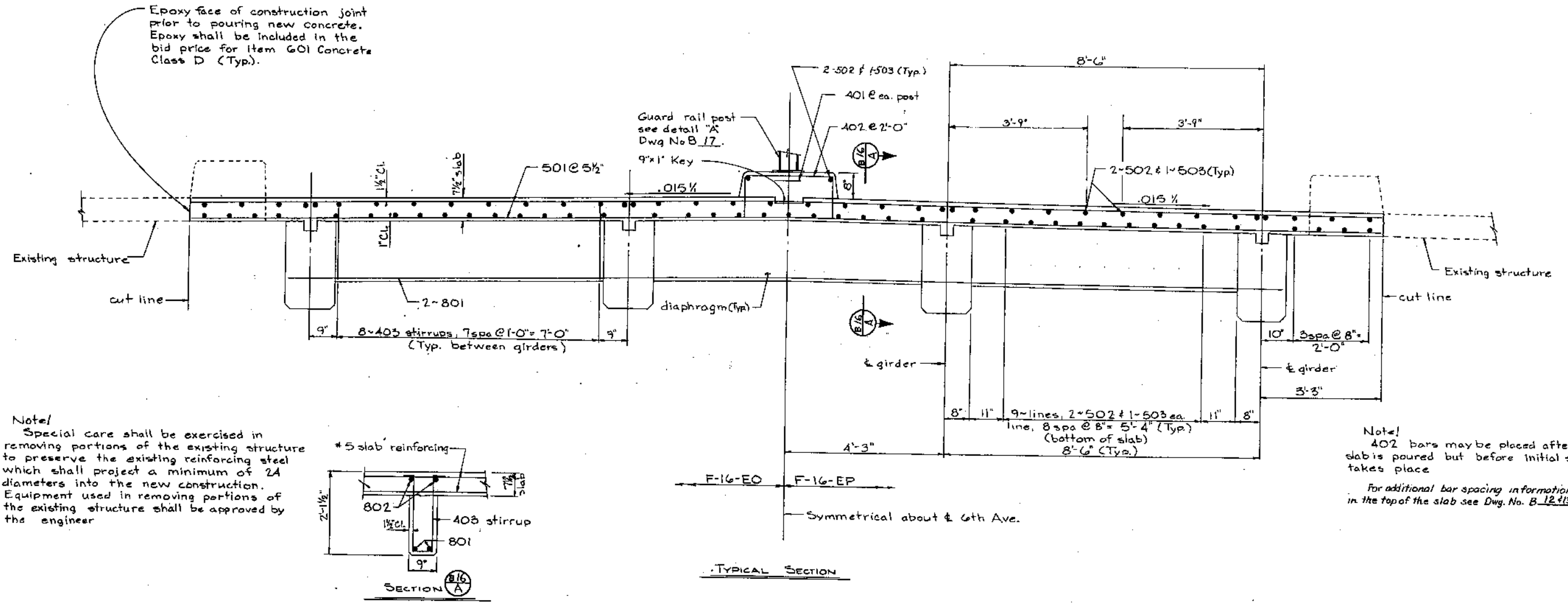
DIVISION OF HIGHWAYS	
SLAB REINFORCING	
Approved:	Designer: G. Singh Detailer: T. Brader
Bridge Engineer	Structure: F-16-EO W.B.
Date:	Members: F-16-EP E.B.
	DWG. No. B 15 OF 18

NO REVISIONS
NO REVISIONS
 NO REVISIONS DATE JUL 14 1972

FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
COLORADO	1006-6(2)	26	

REVISIONS	

INITIALS	DATE	DESCRIPTION
K.W.G.	3-7-71	DESIGNED BY
D.L.R.	1-1-71	CHECKED BY
V.R.	1-1-71	QUANTITIES BY
J.S.R.	1-1-71	CHECKED BY



Epoxy face of construction joint prior to pouring new concrete. Epoxy shall be included in the bid price for Item 601 Concrete Class D (Typ).

Note!
 Special care shall be exercised in removing portions of the existing structure to preserve the existing reinforcing steel which shall project a minimum of 24 diameters into the new construction. Equipment used in removing portions of the existing structure shall be approved by the engineer.

Note!
 402 bars may be placed after dabs is poured but before initial set takes place.
 For additional bar spacing information in the top of the slab see Dwg. No. B-12 & 13.

DIVISION OF HIGHWAYS

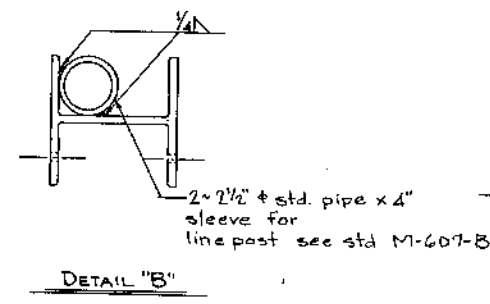
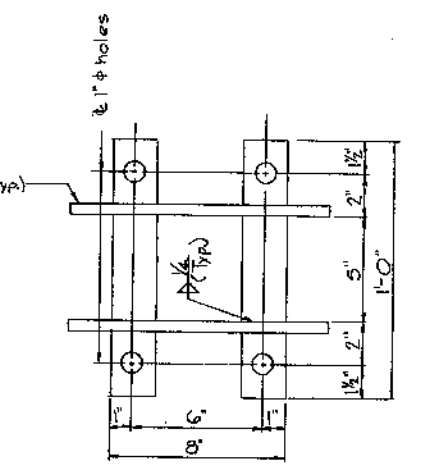
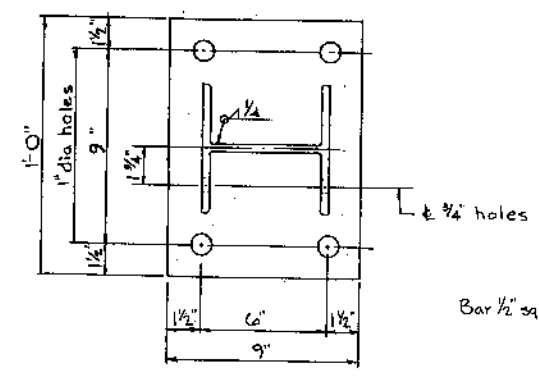
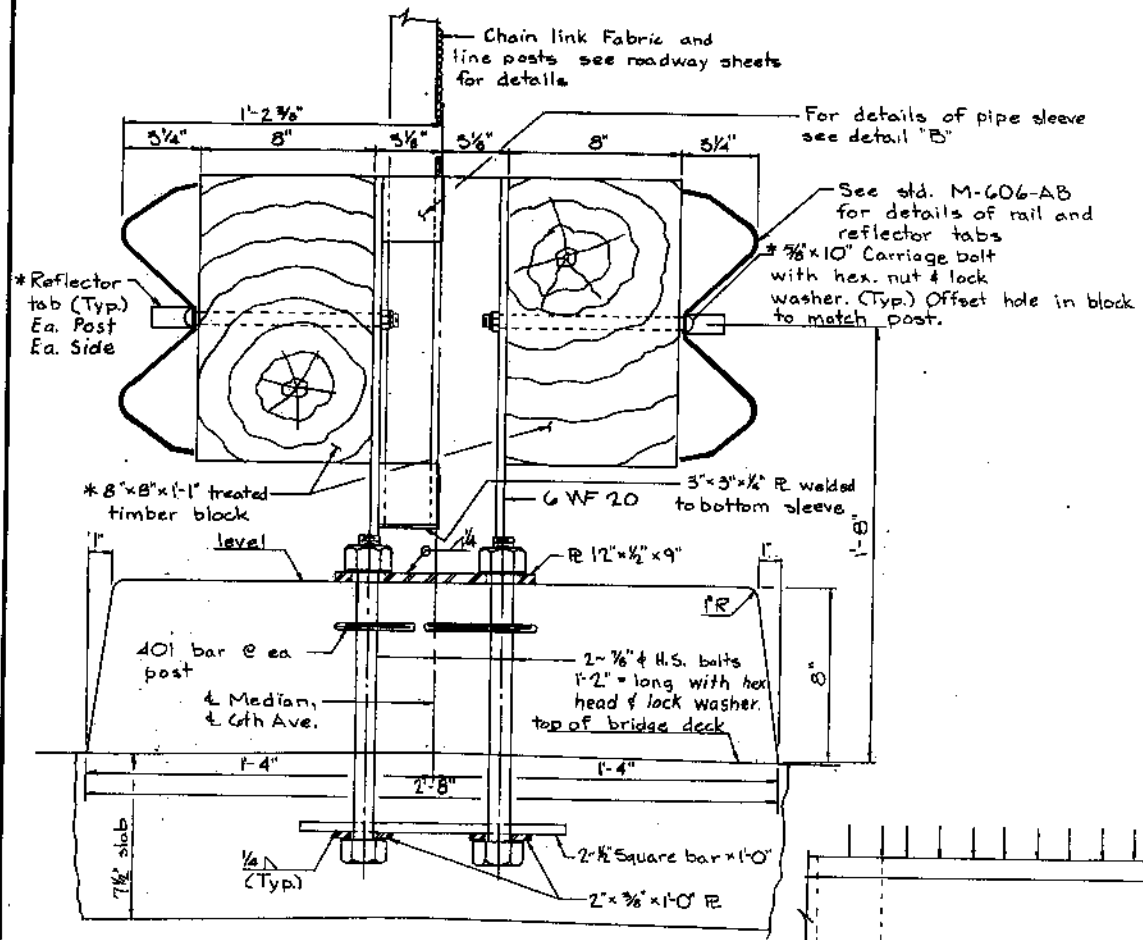
TYPICAL SECTION

Approved:	Designer: G. Singh	Detailer: T. Breder
Bridge Engineer:	Structure Number: F-16-EO W.B.	Date: F-16-EP E.B.
	DWG. No. B 16 OF 18	

AS CONSTRUCTED
NO REVISIONS DATE JUL 14 1972
NO REVISIONS DATE JUL 14 1972

FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
COLORADO	4006-6(2)	27	

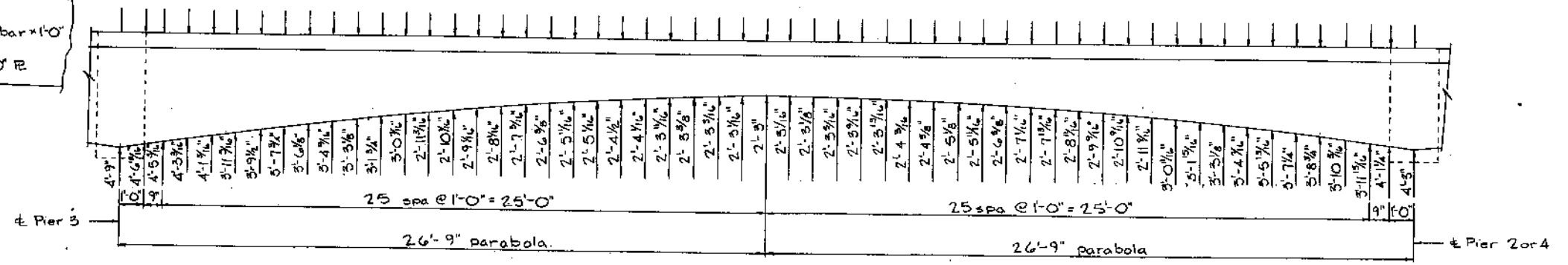
REVISIONS	



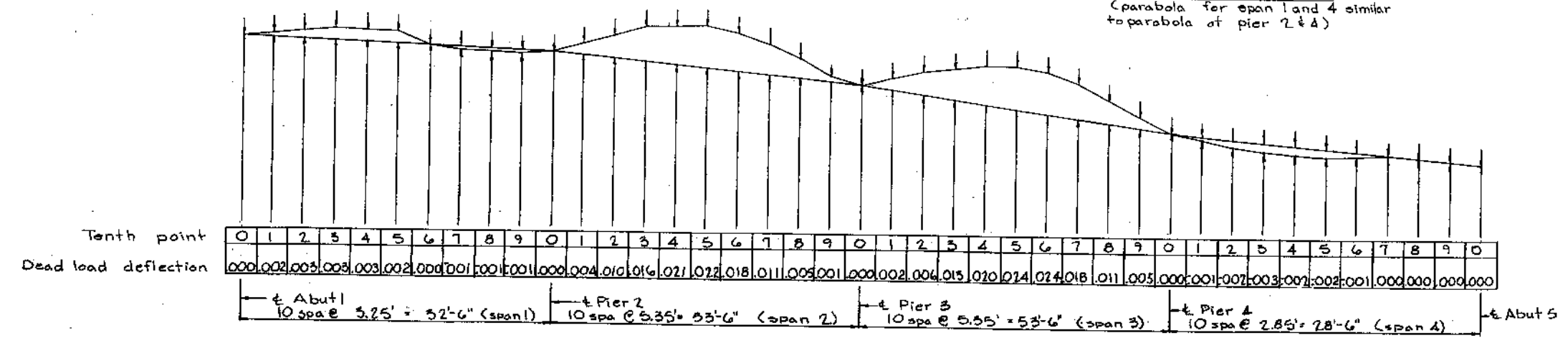
Notes
Posts shall be perpendicular to grade of deck.
All posts, clips, anchor assemblies, anchor bolts, nuts, and washers shall be galv. after fabrication in accordance with the specifications.
Lap splices in direction of traffic.
Aluminum guard rail 0.125" thick will be an acceptable equivalent for steel guard rail.
* To be included in the bid price for item 606, Guard Rail, Type 3A (double)

DESIGNED BY	DATE	CHECKED BY	DATE
QUANTITIES BY	DATE		

DETAIL 'A'
No. of Guardrail posts req'd. = 27
No. of Guardrail pos. 12'-6" long req'd. = 26



PARABOLA DETAILS
(parabola for span 1 and 4 similar to parabola at pier 2 & 4)



CAMBER DIAGRAM

DIVISION OF HIGHWAYS

MISCELLANEOUS DETAILS

Approved:	Designer: G. Singh	Detailer: I. Breder
Bridge Engineer:	Structure Number: F-16-EO W.B.	
Date:		DWG. No. B 17 of 18

AS CONSTRUCTED
NO REVISIONS DATE JUL 14 1972

FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
COLORADO	U 006-6(2)	28	

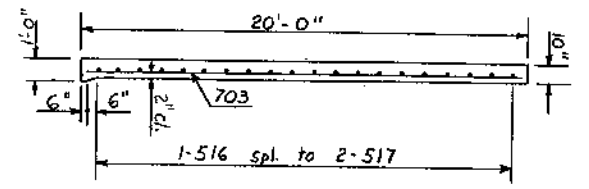
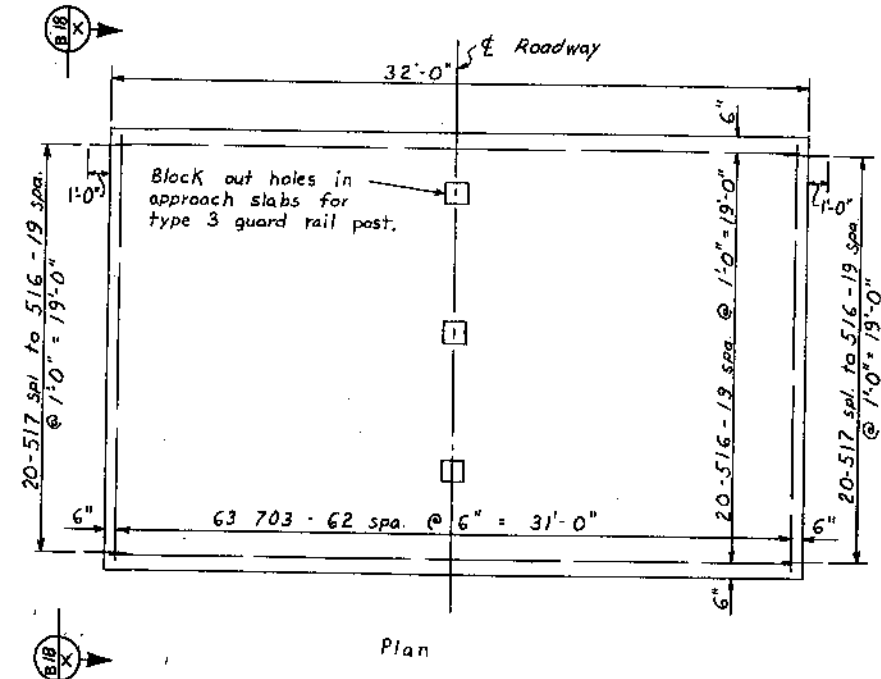
REVISIONS	

Mark	No. Req'd	Length	Type	Dimensions	
				h	v
516	40	31'-8"	Str.		
517	80	2'-5"	Str.		
703	126	19'-8"	Str.		

1460 Lin.Ft. #5 Bar @ 1.043 lbs./Lin.Ft. = 1,523 Lbs.
2478 Lin.Ft. #7 Bar @ 2.044 lbs./Lin.Ft. = 5,065 Lbs.
Total = 6,588 Lbs.

Item No.	Description	Unit	Total
412	Concrete Pavement (10 inch)	Sq. Yd.	143
602	Reinforcing Steel	Lb.	6,588

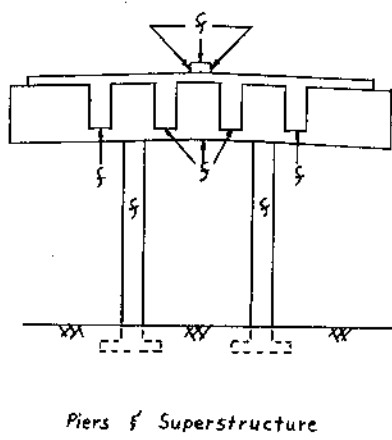
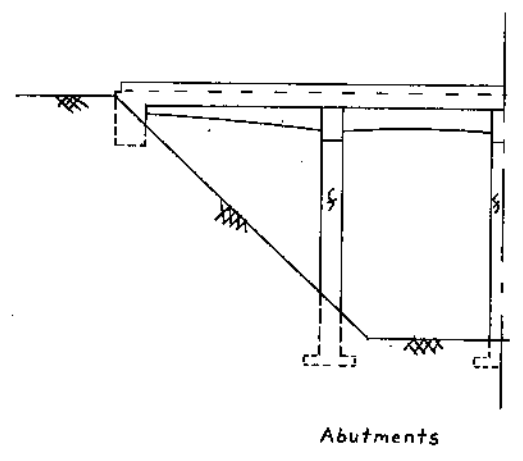
Concrete for approach slabs may be class A, D, or P.



APPROACH SLAB DETAILS

Note:
Drill and grout 517 bars into existing approach slab. All modifications of the existing approach slab to be included in the bid price for Item No. 412 Concrete Pavement 10".

DESIGNED BY	DATE	CHECKED BY	DATE
QUANTITIES BY		CHECKED BY	



SURFACE FINISH DETAILS



DIVISION OF HIGHWAYS			
APPROACH SLAB DETAILS			
SURFACE FINISH DETAILS			
BAR LIST - BAR SUMMARY 2 APP'R. SLABS			
SUMMARY OF QUANTITIES 2 APP'R. SLABS			
Approved:	Designer: G. Singh	Checker: R. Gilliland	
Structure Number:	F-16-EO	W.B.	
Bridge Engineer:	F-16-EP	F.B.	
Date:	DWG. No. B 18 OF 18		

GENERAL NOTES

ALL WORK SHALL BE DONE ACCORDING TO THE STANDARD SPECIFICATIONS OF THE DIVISION OF HIGHWAYS, STATE OF COLORADO, APPLICABLE TO THE PROJECT.

EACH REINFORCING BAR SHALL BE TAGGED WITH BAR DESIGNATION, STRUCTURE NUMBER AND STATION OF THE PROJECT. THE FIRST DIGIT OR DIGITS; 4-11 OF THE REINFORCING BAR DESIGNATION INDICATES THE BAR SIZE. EXAMPLE: 406 = #4 BAR, 1103 = #11 BAR. ALL DIMENSIONS ON BAR BENDING DIAGRAMS ARE OUT TO OUT. DIMENSIONS FOR REINFORCING BARS NOT SHOWN AS CLEAR SHALL BE TO THE CENTERLINE OF THE BAR. IF BY PERMISSION OF THE ENGINEER PRIMARY BARS ARE SPLICED, THEY SHALL LAP A MINIMUM OF 40 DIAMETERS.

ALL CONCRETE SURFACES MARKED WITH THE SYMBOL \int AS SHOWN ON DRAWING NO. B-4 SHALL RECEIVE A CLASS 2 SURFACE FINISH.

ALL CONCRETE CHAMFERS SHALL BE 3/4" UNLESS OTHERWISE NOTED.

EXPANSION JOINT MATERIAL SHALL MEET AASHTO SPECIFICATION M 213-65 UNLESS OTHERWISE NOTED.

SOUNDINGS AND DEPTH OF FOOTINGS ARE IN ACCORDANCE WITH THE BEST AVAILABLE DATA. WHEN DIFFERENT CONDITIONS ARE ENCOUNTERED, THE BRIDGE ENGINEER WILL INSPECT AND DETERMINE IF REDESIGN IS NECESSARY.

WHEN TREATED TIMBER PILING IS SHOWN ON THE PLANS, THE PRESERVATIVE FOR TREATMENT SHALL BE CREOSOTE DIL.

WHEN EXCAVATING FOR FOOTINGS THE FINAL SIX INCHES IN DEPTH SHALL BE DONE BY HAND-LABOR METHODS.

FOR DETAILS OF STRUCTURE EXCAVATION AND STRUCTURE BACKFILL. SEE STANDARD M-206-A.

ALL STRUCTURAL STEEL NOT OTHERWISE NOTED SHALL BE AASHTO SPECIFICATION M-183.

ALL STRUCTURAL STEEL NOT OTHERWISE NOTED SHALL BE PAINTED IN ACCORDANCE WITH SECTION 509 FOR (ALUMINUM) PAINT.

ALL BOLTS SHALL BE 3/4" DIAMETER, HIGH STRENGTH, UNLESS OTHERWISE NOTED.

NO WELDING OF ANY KIND SHALL BE PERMITTED ON THE FLANGES OF STEEL GIRDERS UNLESS SPECIFICALLY CALLED FOR ON THE PLANS.

ALL REINFORCING BAR SPLICES SHOWN IN THE SUPERSTRUCTURE SHALL HAVE A MINIMUM LAP OF 40 DIAMETERS UNLESS OTHERWISE NOTED. WHERE SPLICES CONTAIN BARS OF DIFFERENT DIAMETERS THE SPLICE LENGTH SHALL BE GOVERNED BY THE SMALLEST BAR.

THE FOLLOWING TABLE SHOWS THE MINIMUM 40 DIAMETER LAP FOR COMMON BAR SIZES.

BAR SIZE	#4	#5	#6	#7	#8	#9	#10	#11
LAP	1'-8"	2'-1"	2'-6"	2'-11"	3'-4"	3'-10"	4'-3"	4'-9"

LOADING DATA

LIVELOAD: AASHTO HS-20-44 OR INTERSTATE ALTERNATE.
 DEADLOAD: ASSUMES 20 LBS. PER SQ. FT. ADDITIONAL WEARING SURFACE. (FUTURE)
 NO PROVISION HAS BEEN MADE FOR ADDITIONAL OVERLAYS.

DESIGN DATA

AASHTO UNIT STRESSES EXCEPT AS NOTED.

REINFORCING STEEL: GRADE 40 $F_s = 20,000$ LBS. PER SQ. IN.
 GRADE 60 $F_s = 24,000$ LBS. PER SQ. IN.
 STRUCTURAL STEEL: A 36 $F_s = 20,000$ LBS. PER SQ. IN.
 A 572 GRADE 50 $F_s = 27,000$ LBS. PER SQ. IN.
 CONCRETE: $F_c = 1,200$ LBS. PER SQ. IN.
 $n = 10$

AS CONSTRUCTED

REVISED DATE JUL 14 1972

FEDERAL ROAD REGION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
	COLORADO	U006-6(2)	29	

REVISIONS	

SUMMARY OF QUANTITIES

Item	Description	Unit	Super-struct	Abut. 1	Pier 2	Pier 3	Abut. 4	Total
202	Removal of Portions of Present Structure	Each						1
206	Structure Excavation	Cu. Yd.		14	22	25	14	75
208	Structure Backfill (Class 2)	Cu. Yd.		6	7	7	6	26
502	Steel Piling (10 BP42)	Lin. Ft.		283	423	380	271	1367
502	Steel Piling Cut Off	Lin. Ft.		260	352	352	256	1220
509	Structural Steel	Lin. Ft.		0	6	4	9	19
509	Structural Steel (Galvanized)	Lbs.	76040	341	778	771	341	78271
516	Dampproofing (Linseed oil)	Sq. Yd.		1577				1577
601	Concrete, Class A	Sq. Yd.		611				611
601	Concrete, Class D	Cu. Yd.		9	20	20	9	58
601	Concrete Slope & Ditch Paving (Rein)	Cu. Yd.		109				109
602	Reinforcing Steel	Lbs.		31262	1205	5443	1205	41558
606	Guard Rail Type 3A (Double)	Lin. Ft.		129				129
1	16 Gage Galvanized Sheet Metal	Sq. Ft.		260				260
1	1/2" Expansion Joint Material	Sq. Ft.		120				120

- ① To be included in the bid price for Item 601, Concrete Class A.
- ② 10W-45 May be used in lieu of 10 BP42.
- ③ Includes 143 sq. yds. for two approach slabs.

BK #4, P22
 BK #1, P11
 BK #1, P13
 BK #0, P29
 BK #3, P31
 BK #1, P29
 BK #1, P31
 BK #3, P33
 BK #1, P33
 BK #1, P39
 BK #3, P32
 BK #1, P38
 BK #3, P10

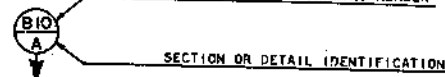
INDEX OF DRAWINGS

- B1 General Information - Summary of Quantities
- B2 General Layout
- B3 Engineering Geology
- B4 Elevations
- B5 Bar List - Bar Summary - Bending Diagram - Surface Finish Details
- B6 Construction & Piling Layout
- B7 Details of Abutments
- B8 Pier Details
- B9 Superstructure Detail
- B10 Superstructure Sections
- B11 Details of Girder
- B12 Miscellaneous Details

LEGEND

- E.F. = EACH FACE
- N.F. = NEAR FACE
- F.F. = FAR FACE
- B.E.I. = BY EQUAL INCREMENTS

CROSS REFERENCE DRAWING NUMBER



BRIDGE DESCRIPTION

3-Simple Spans (30'-0", 66'-0", 30'-0")
 Concrete Slab and I-Beam - Span 1 & 3
 Concrete Slab and Welded Steel Girder - Span 2

Over Garrison St.
 Widening to 92'-0" Roadway, 90°00' Skew
 Guard Rail Type 3A (Double)

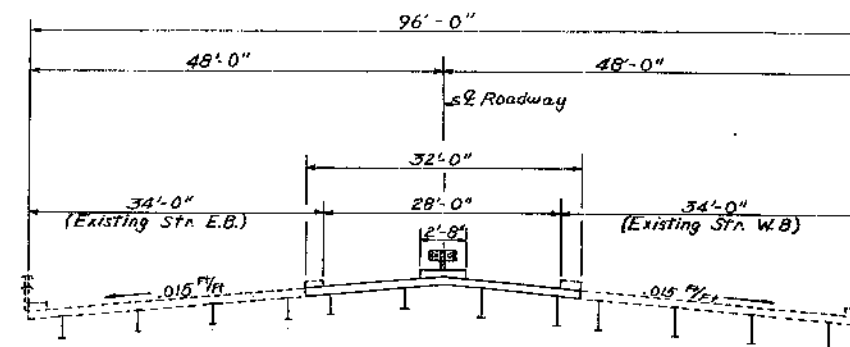
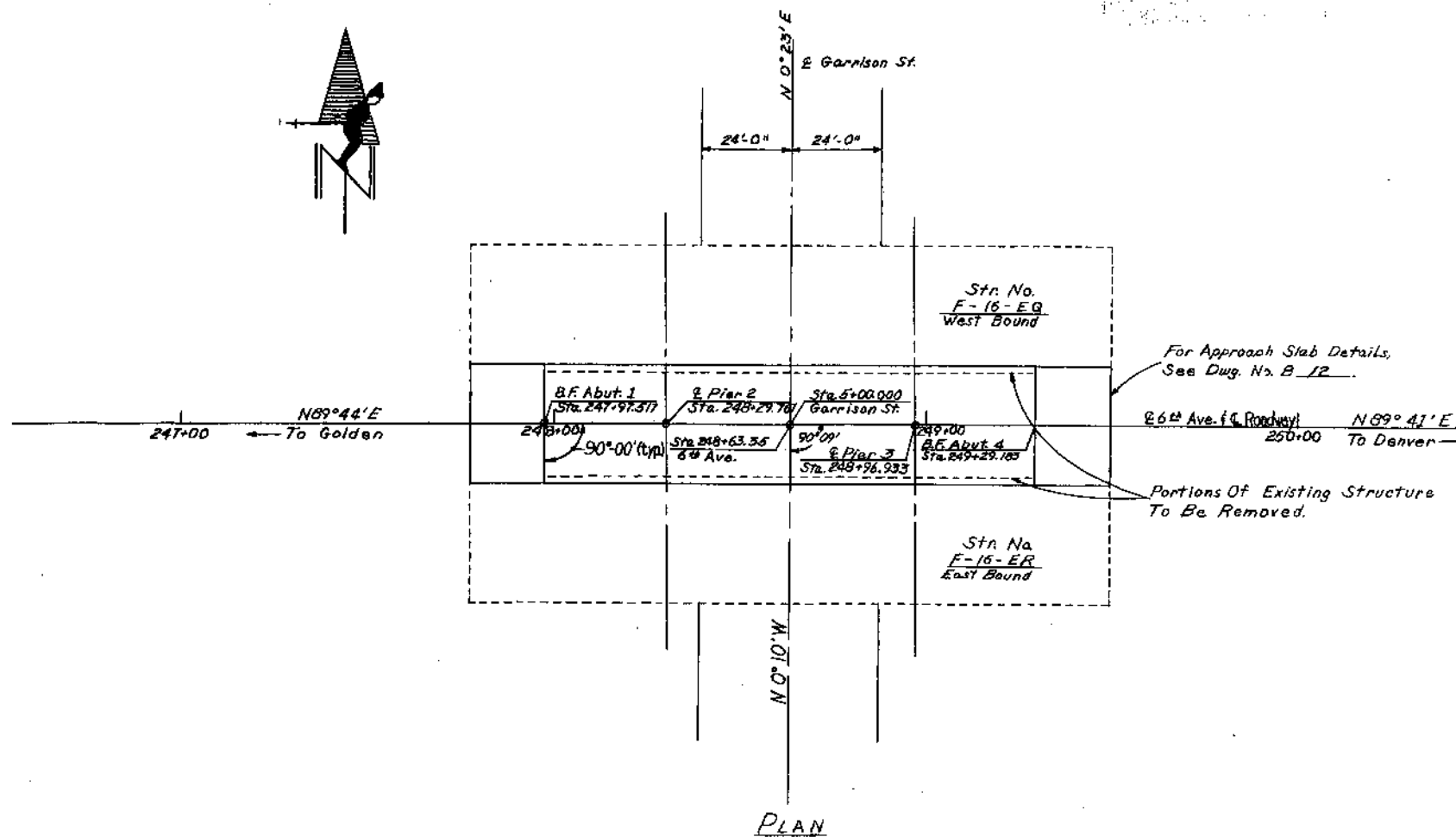


DIVISION OF HIGHWAYS	
GENERAL INFORMATION	
SUMMARY OF QUANTITIES	
Station	247+97.517 to 249+22.183
Section	3/10 T. 451 R. 69W
Design	G. Singh
Detail	R. Schiff
Structure	F-16-EG
Members	F-16-ER
Date	Apr 30, 1971
DWG. No.	B 1 OF 12

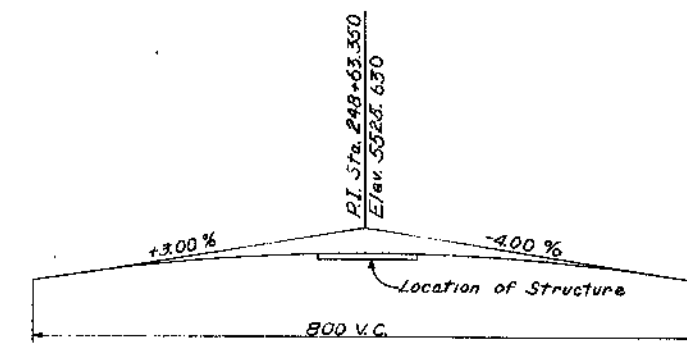
AS CONSTRUCTED
REVISED DATE JUL 14 1972

FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	U006-6(2)	30

REVISIONS	



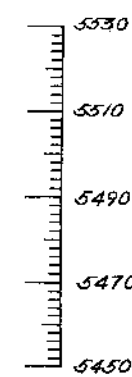
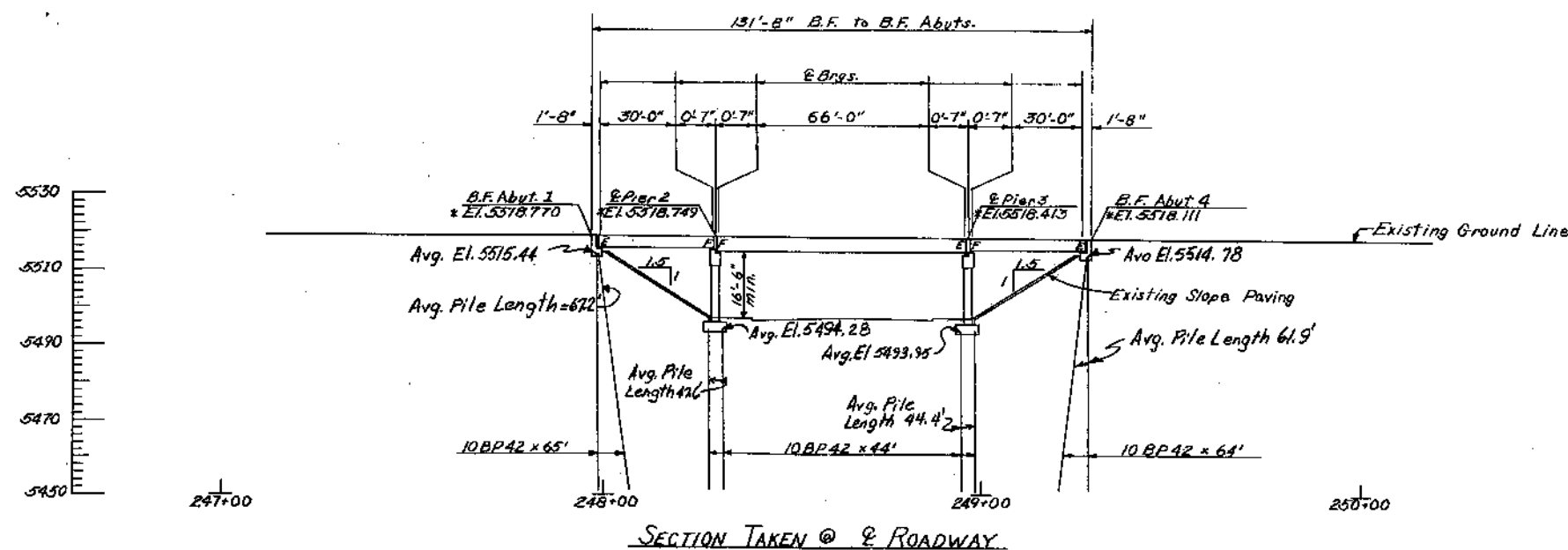
TYPICAL SECTION



VERTICAL CURVE
P.I. elevation adjusted to ∇ 6th Ave. ∇ roadway.

NOTE: All piling are end bearing.
Pile lengths are estimated.
*Elevations are at top of concrete deck.

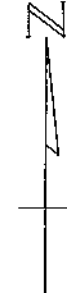
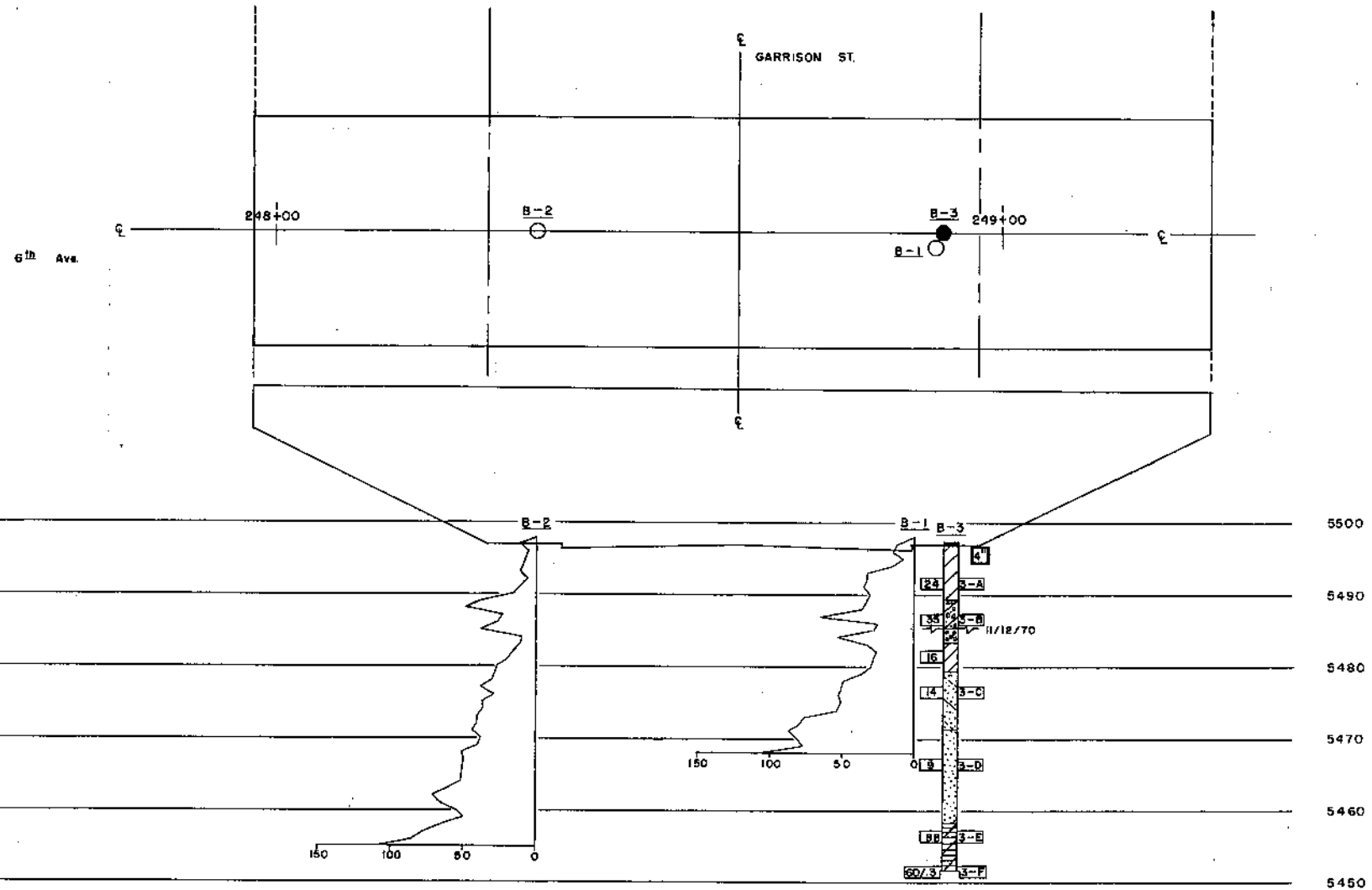
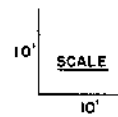
DESIGNED BY	CHECKED BY	DATE	QUANTITY BY	DATE



DIVISION OF HIGHWAYS		
GENERAL LAYOUT		
Approved:	Designer: <i>G. Singh</i>	Detailer: <i>R. Schiff</i>
Bridge Engineer:	Structure Numbers: <i>F-16-EG</i>	
Date:	DWG. No. <i>B-2</i> OF <i>12</i>	

AS CONSTRUCTED
~~NOT CONSTRUCTED~~
NO REVISIONS DATE JUL 14 1972

FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
7	COLD.	U-006-6(2)	3/	

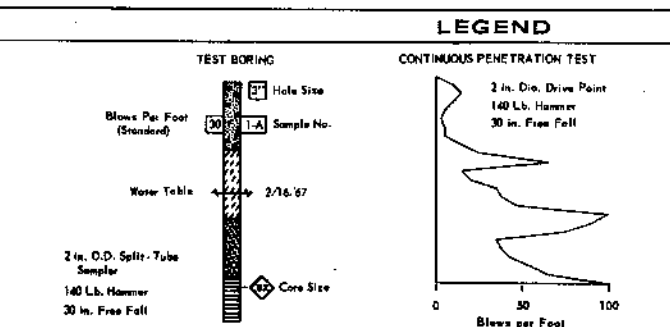


SUMMARY OF TEST RESULTS

Sample No.	Depth	Classification	AAASD	Grading Analysis				Atterberg Limits			Water Cont. %	Per Unit Weight	Unit Weight	Triaxial Shear Strength					Dia. of Sample (Inches)		
				Gravel	Coarse Sand	Fine Sand	Silt and Clay	Liquid Limit (%)	Plasticity Index (%)	Shrinkage (%)				Unconsolidated	Consolidated	Time	Pressure	Shear Stress		Normal Stress	
3-A	5.0 - 8.5	SANDY CLAY	A-7-6(22)	1	7	22	70	54	22	32	22.0										
3-B	10.0 - 11.5	SANDY CLAY	A-2-6(1)	48	10	17	25	34	18	16	10.6										
3-C	20.0 - 21.5	SANDY CLAY	A-6(5)	9	9	33	49	38	22	16	30.0										
3-D	30.0 - 31.5	SILTY SAND	A-2-4(0)	15	24	41	20	NV	NP	NP	25.5										
3-E	40.0 - 41.2	CLAYSTONE	A-7-5(33)	0	0	10	90	68	39	29	32.8										
3-F	45.0 - 45.5	CLAYSTONE	A-7-6(20)	0	0	10	90	47	27	20	30.0	125.7	7.00								1.3

TYPE OF MATERIAL

- CLAY
- SAND
- GRAVEL
- ASPHALT
- CLAYSTONE
- SAND, SILTY & CLAYEY
- GRAVELLY CLAY, SANDY



DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

ENGINEERING GEOLOGY

Across GARRISON ST. ST. NO. (F-16-EG)
Site 248 to 249 (F-16-ER)

New LAKEWOOD, Sec. T. R.

Geologist: K. W. B. Approved by: _____
Made by: D. K. C. Bridge Engineer
Checked by: G. C. P. Date: _____

STRUCTURE NO. E-16-EG 1 E-16-ER
DWG. NO. B. 3 OF 12

AS CONSTRUCTED
NO REVISIONS DATE 11-15-02
AS CONSTRUCTED
NO REVISIONS DATE 11-15-02

FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
COLORADO	U006-6(2)	33	

REVISIONS	

BAR LIST ~ ABUT. 1 & 4

Mark	No. Req'd	Length	Type	Dimensions h v	
404	41	7'-0"	II	0'-8"	3'-2"
405	41	8'-6"	I	2'-4"	1'-7"
406	6	32'-0"	Str.		
501	2	32'-0"	Str.		
601	32	1'-6"	Str.		
801	6	32'-0"	Str.		

SUMMARY ~ ABUT. 1

828 Lin.Ft. #4 Bar @ 0.668 Lbs./Lin.Ft. = 553 Lbs.
 64 Lin.Ft. #5 Bar @ 1.043 Lbs./Lin.Ft. = 67 Lbs.
 48 Lin.Ft. #6 Bar @ 1.502 Lbs./Lin.Ft. = 72 Lbs.
 192 Lin.Ft. #8 Bar @ 2.670 Lbs./Lin.Ft. = 513 Lbs.
Total = 1205 Lbs.

SUMMARY ~ ABUT. 4

828 Lin.Ft. #4 Bar @ 0.668 Lbs./Lin.Ft. = 553 Lbs.
 64 Lin.Ft. #5 Bar @ 1.043 Lbs./Lin.Ft. = 67 Lbs.
 48 Lin.Ft. #6 Bar @ 1.502 Lbs./Lin.Ft. = 72 Lbs.
 192 Lin.Ft. #8 Bar @ 2.670 Lbs./Lin.Ft. = 513 Lbs.
Total = 1205 Lbs.

BAR LIST ~ PIER 2 & 3

Mark	No. Req'd	Length	Type	Dimensions h v	
401	42	6'-3"	VIII		
508	2	28'-2"	Str.		
509	44	12'-8"	V		
701	36	5'-8"	Str.		
702	2	28'-2"	Str.		
1101	20	16'-10"	Str.		
1102	20	6'-2"	VII	1'-5"	4'-9"
1103	5	20'-0"	Str.		
1104	6	28'-2"	Str.		
1105	4	10'-6"	Str.		

SUMMARY ~ PIER 2

263 Lin.Ft. #4 Bar @ 0.668 Lbs./Lin.Ft. = 176 Lbs.
 614 Lin.Ft. #5 Bar @ 1.043 Lbs./Lin.Ft. = 640 Lbs.
 260 Lin.Ft. #7 Bar @ 2.044 Lbs./Lin.Ft. = 531 Lbs.
 771 Lin.Ft. #11 Bar @ 5.313 Lbs./Lin.Ft. = 4096 Lbs.
Total = 5443 Lbs.

BAR LIST ~ PIER 2 & 3 (CONT.)

SUMMARY ~ PIER 3

263 Lin.Ft. #4 Bar @ 0.668 Lbs./Lin.Ft. = 176 Lbs.
 614 Lin.Ft. #5 Bar @ 1.043 Lbs./Lin.Ft. = 640 Lbs.
 260 Lin.Ft. #7 Bar @ 2.044 Lbs./Lin.Ft. = 531 Lbs.
 771 Lin.Ft. #11 Bar @ 5.313 Lbs./Lin.Ft. = 4096 Lbs.
Total = 5443 Lbs.

BAR LIST ~ SUPERSTRUCTURE

Mark	No. Req'd	Length	Type	Dimensions h v	
407	66	4'-3"	II	2'-3"	1'-0"
408	22	4'-8"	I	1'-0"	1'-0"
502	702	31'-11"	Str.		
503	70	31'-8"	Str.		
504	74	30'-0"	Str.		
505	74	39'-0"	Str.		

SUMMARY

583 Lin.Ft. #4 Bar @ 0.668 Lbs./Lin.Ft. = 256 Lbs.
 29,728 Lin.Ft. #5 Bar @ 1.043 Lbs./Lin.Ft. = 31,006 Lbs.
Total = 31,262 Lbs.

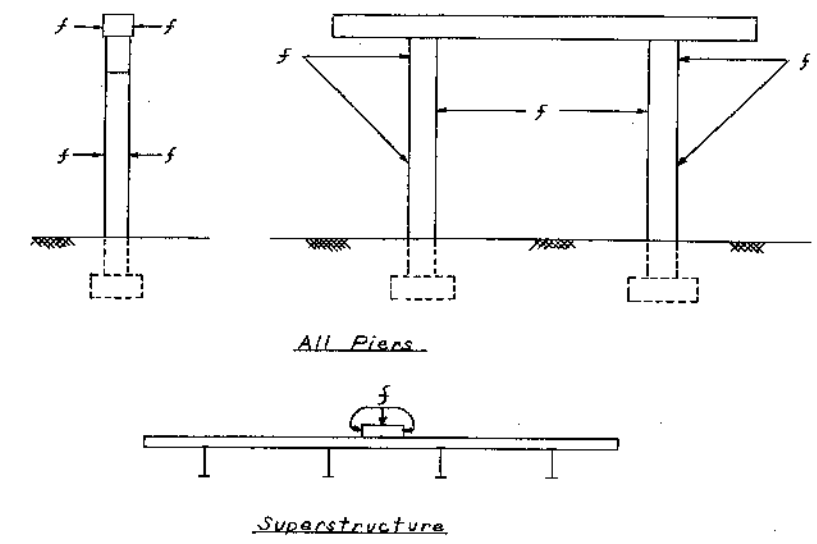
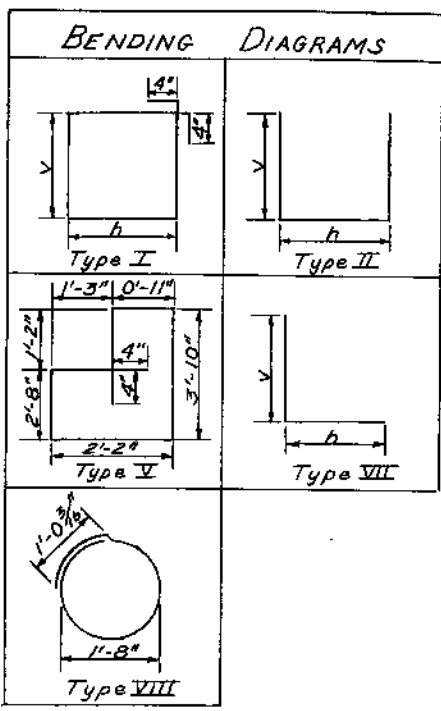
*** BAR LIST ~ 2 APPROACH SLABS**

Mark	No. Req'd	Length	Type	Dimensions h v	
506	40	31'-8"	Str.		
507	80	2'-5"	Str.		
703	126	19'-8"	Str.		

SUMMARY

1460 Lin.Ft. #5 Bar @ 1.043 Lbs./Lin.Ft. = 1523 Lbs.
 2478 Lin.Ft. #7 Bar @ 2.044 Lbs./Lin.Ft. = 5065 Lbs.
Total = 6588 Lbs.

*To be included in roadway quantities.



*** SUMMARY OF QUANTITIES
2 APPROACH SLABS**

Item No.	Description	Unit	Total
412	Concrete Pavement (10 inch)	Sq. Yd.	143
602	Reinforcing Steel	Lb.	6,588

Concrete for approach slabs may be class A, D, or P.

SURFACE FINISH DETAILS
(Details showing portions of structure to receive Class 2 surface finish)

DESIGNED BY	DATE	CHECKED BY
CHECKED BY	DATE	QUANTITIES BY

DIVISION OF HIGHWAYS

BAR LIST ~ BAR SUMMARY
BENDING DIAGRAMS
SURFACE FINISH DETAILS

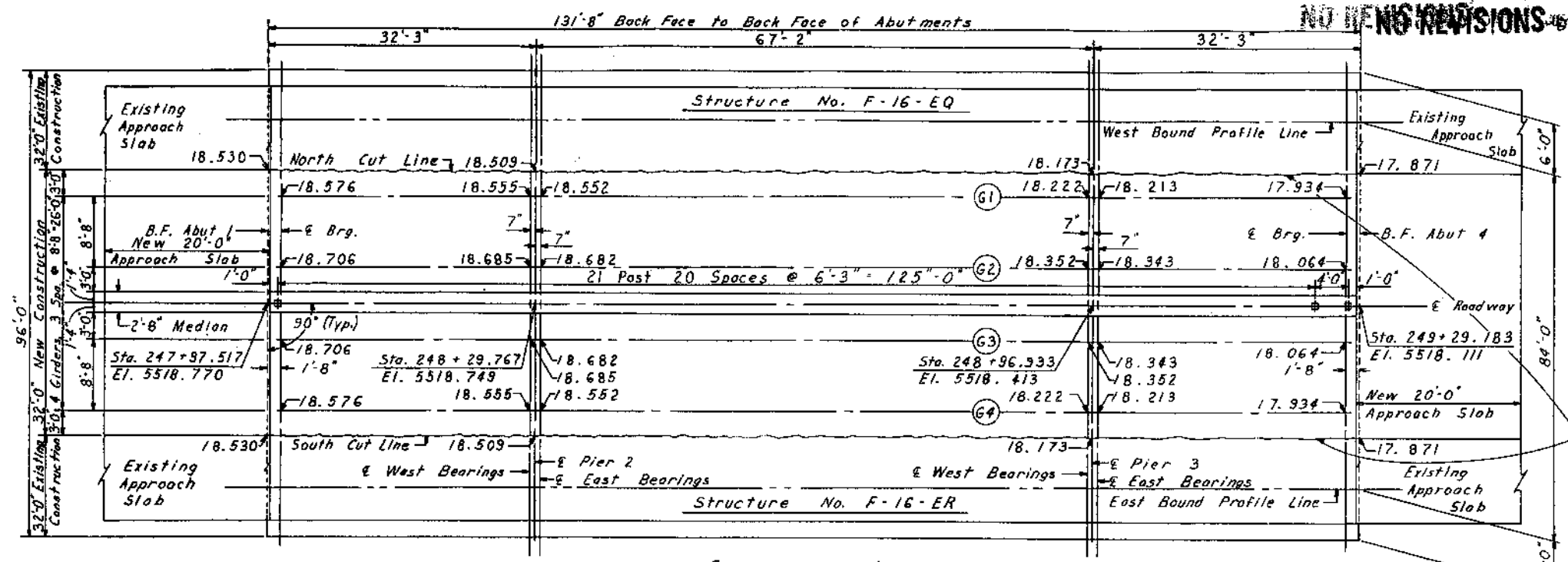
Approved: _____
 Bridge Engineer: _____
 Date: _____

Designer: G. Singh
 Structure Numbers: F-16-EQ
 Details: R. Schilt
 DWG. No. B-5 OF 12

AS CONSTRUCTED
NO REVISIONS DATE: JUL 14 1972

FEDERAL ROAD DISTRICT NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	U 006-6 (2)	34	

REVISIONS	



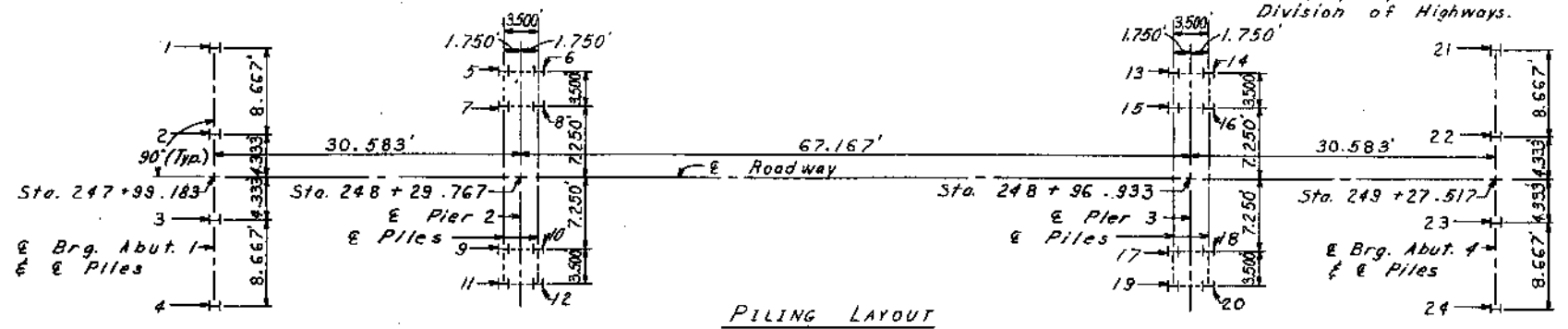
Cut lines. Coat surfaces with epoxy bonding material. Epoxy shall be included in the bid price for Item 601 Concrete Class D.

CUTOFF ELEVATIONS OF PILING

No.	Elevation	No.	Elevation
1	5514.24	13	5493.95
2	5514.37	14	
3	5514.37	15	
4	5514.24	16	
5	5494.28	17	
6		18	
7		19	
8		20	5493.95
9		21	5513.58
10		22	5513.71
11		23	5513.71
12	5494.28	24	5513.58

DESIGNED BY	DATE	CHECKED BY
QUANTITIES BY		
DETAILED BY		

Notes:
All elevations shown are at top of concrete deck.
Structure Number F-16-EQ is similar to Structure Number F-16-ER except as noted.
Stations and Elevations shown are calculated from "As Constructed Plans" for Structure No. F-16-EQ & F-16-ER. These elevations may be adjusted to meet elevations of the Existing Structures.
Salvaged material shall become the property of the Colorado Division of Highways.



Notes:
Piling numbered 1, 4, 21 and 24 are to be battered 2:12
The piling dimensions shown are at the bottom of the concrete.
All pilings are 10 BP 42. Maximum piling load = 32 tons at Abutments and 54 tons at Piers.

DIVISION OF HIGHWAYS

CONSTRUCTION & PILING LAYOUT

Approved:	Designer: G. Singh	Detailer: A. Sharpley
Bridge Engineer	Structure Numbers: F-16-EQ	
Date:	F-16-ER	
	DWG. No. B 6	OF 12

AS CONSTRUCTED
NO REVISIONS DATE Jul 14 1972
NO REVISIONS DATE Jul 14 1972

FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
COLORADO	U 006-6 (2)	35	

REVISIONS	

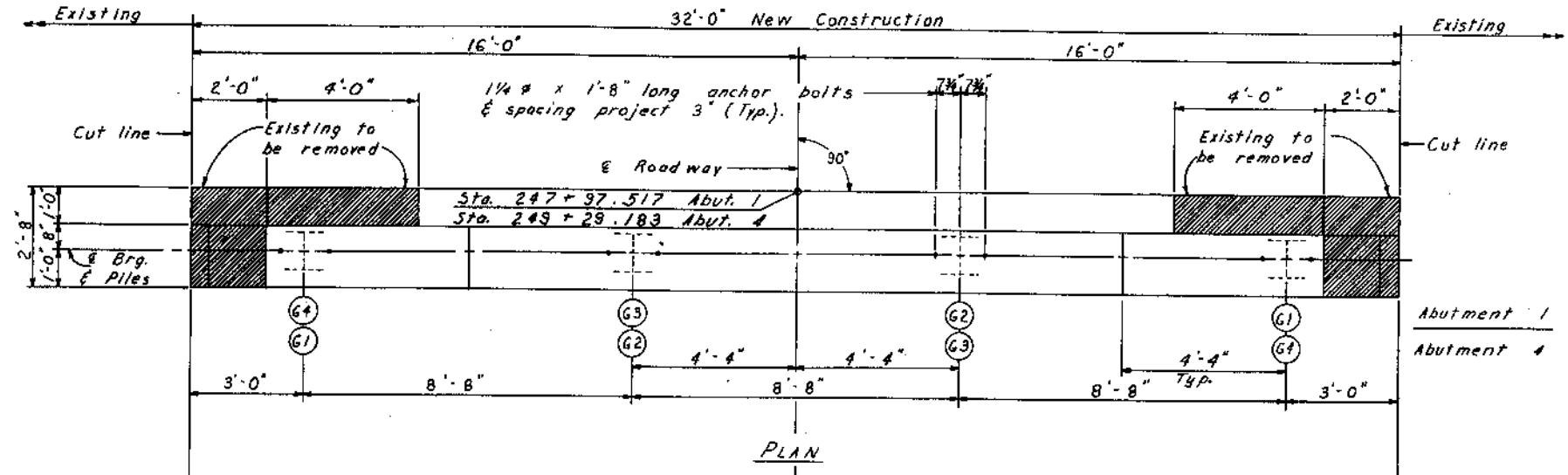
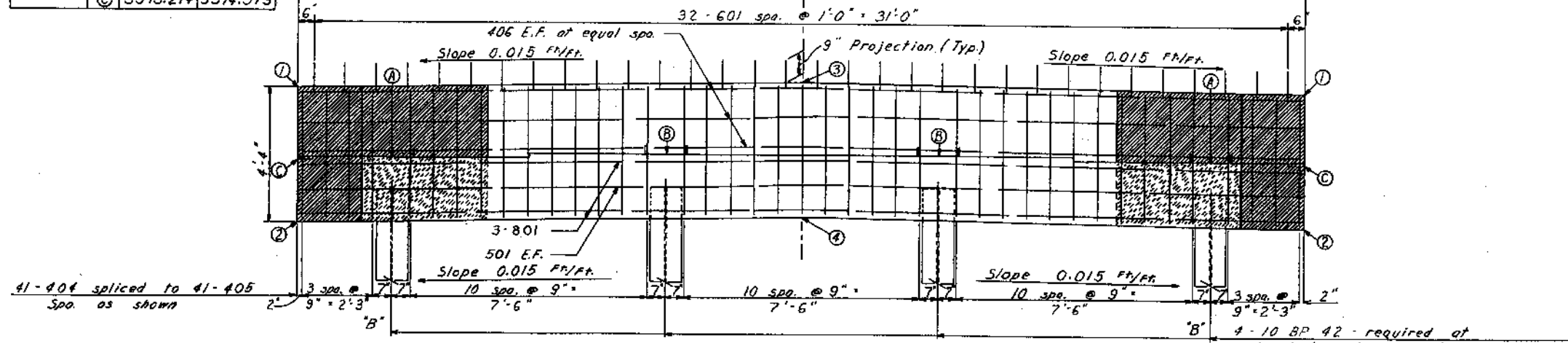
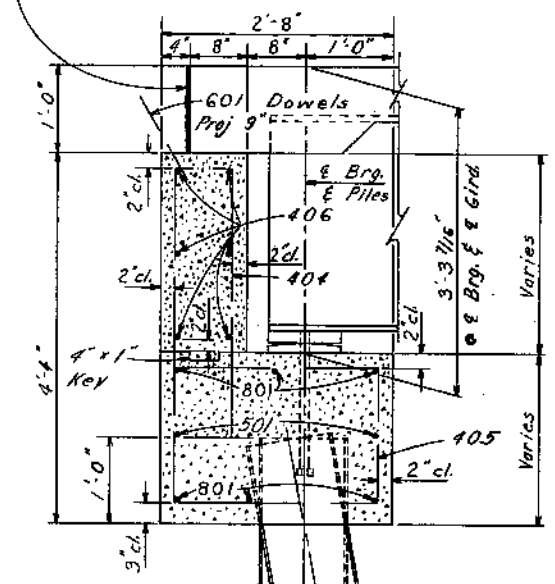


Table of Elevations

Location	Point	Abut 1	Abut 4
Back Face of Abut	①	5517.530	5516.871
	②	5513.196	5512.538
	③	5517.770	5517.111
	④	5513.436	5512.778
Brq. Seats	A	5515.289	5514.648
	B	5515.419	5514.778
	C	5515.214	5514.573

DATE	CHECKED BY	DATE	CHECKED BY
12-70	G.S.	12-70	G.S.
1-71	H.S.	1-71	H.S.
1-71	H.S.	1-71	H.S.
1-71	H.S.	1-71	H.S.
1-71	H.S.	1-71	H.S.

1/2" Exp'n. Jt. Material nailed in place. Tool corners; set 1" below concrete surface and fill with poured mastic joint filler.



ELEVATION
ABUTMENT 1
(Abutment 4 Same except as noted)

DIVISION OF HIGHWAYS

DETAILS OF ABUTMENTS

Approved:	Designer: G. Singh	Detailer: K. Sharples
Bridge Engineer:	Structure Number: F-16-EQ	
Date:	F-16-ER	
	DWG. No. B 7	OF 12

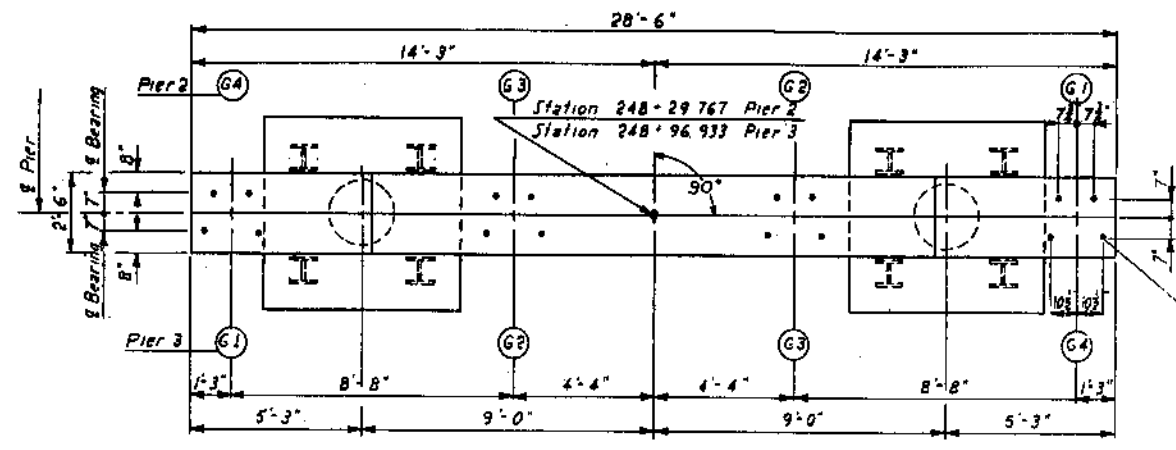
AS CONSTRUCTED
 NO REVISIONS DATE JUL 14 1972

FEDERAL ROAD DISTRICT NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
	COLORADO	U 006-5(2)	36	

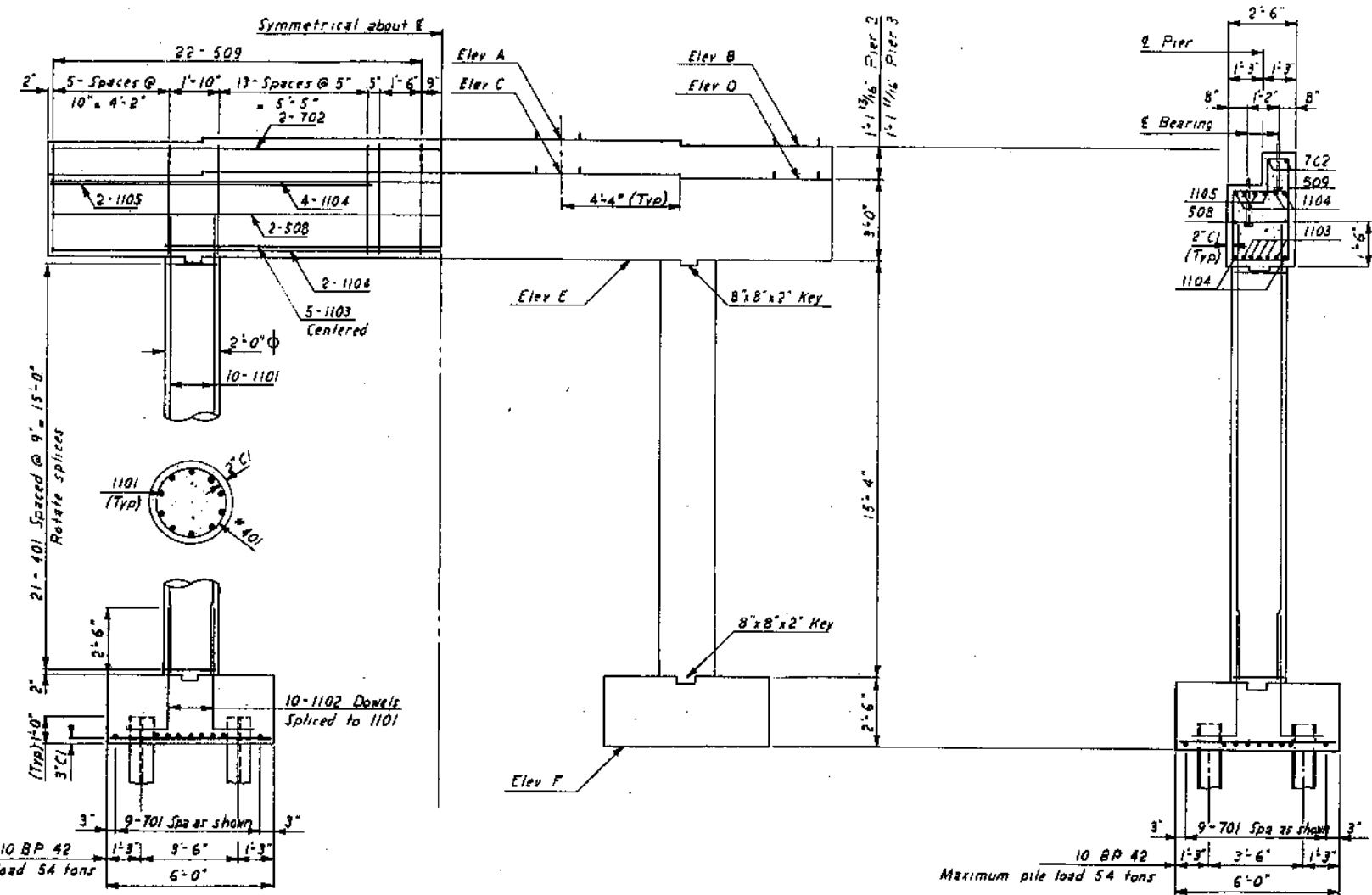
REVISIONS	

ELEVATION	A	B	C	D	E	F
Pier 2	15.398	15.268	14.243	14.115	11.115	5492.282
Pier 3	5.057	14.927	13.915	13.785	10.785	5492.952

Bare elevation 5500



PLAN OF PIER



ELEVATION OF PIER

TYPICAL SECTION THRU PIER

Note
 Pier 3 is the same as Pier 2 unless otherwise noted

DESIGNED BY	CHECKED BY	DATE
BY	BY	
BY	BY	
BY	BY	
BY	BY	
BY	BY	

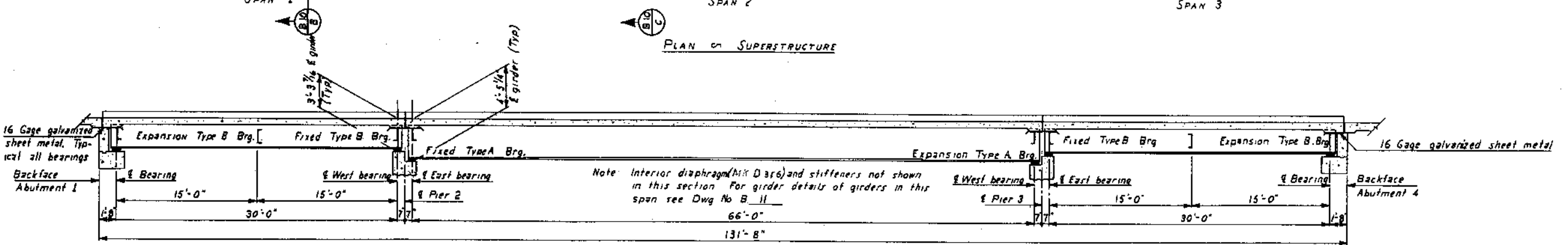
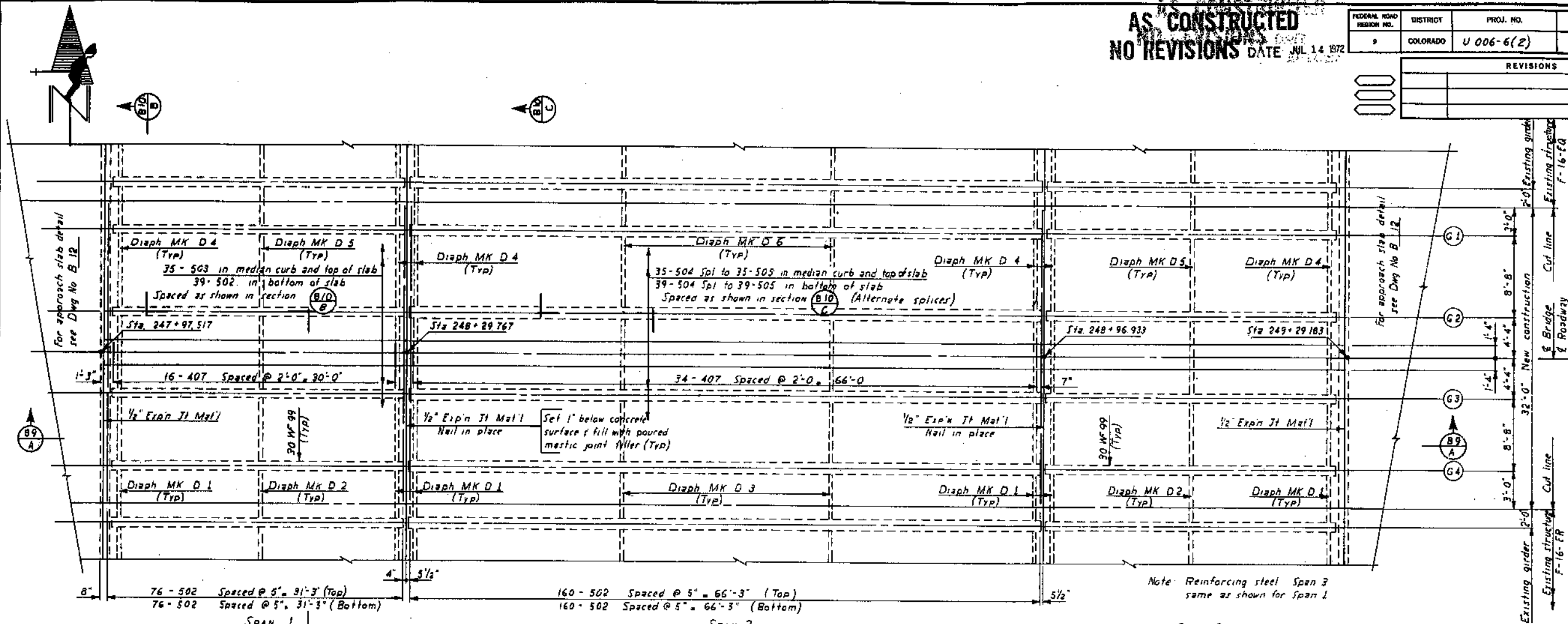
DIVISION OF HIGHWAYS		
PIER DETAILS		
Approved:	Designer: G. Singh	Detailer: R. Jethawan
Bridge Engineer:	Structure Number: F-16-EG	
Date:	Structure Number: F-16-EP	
	DWG. No. B. 8	OF 12

AS CONSTRUCTED
NO REVISIONS DATE JUL 14 1972

FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9 COLORADO	U 006-6(2)	37	

REVISIONS	

DATE	CHECKED BY	DATE	CHECKED BY
12-72			



SECTION **B9 A**

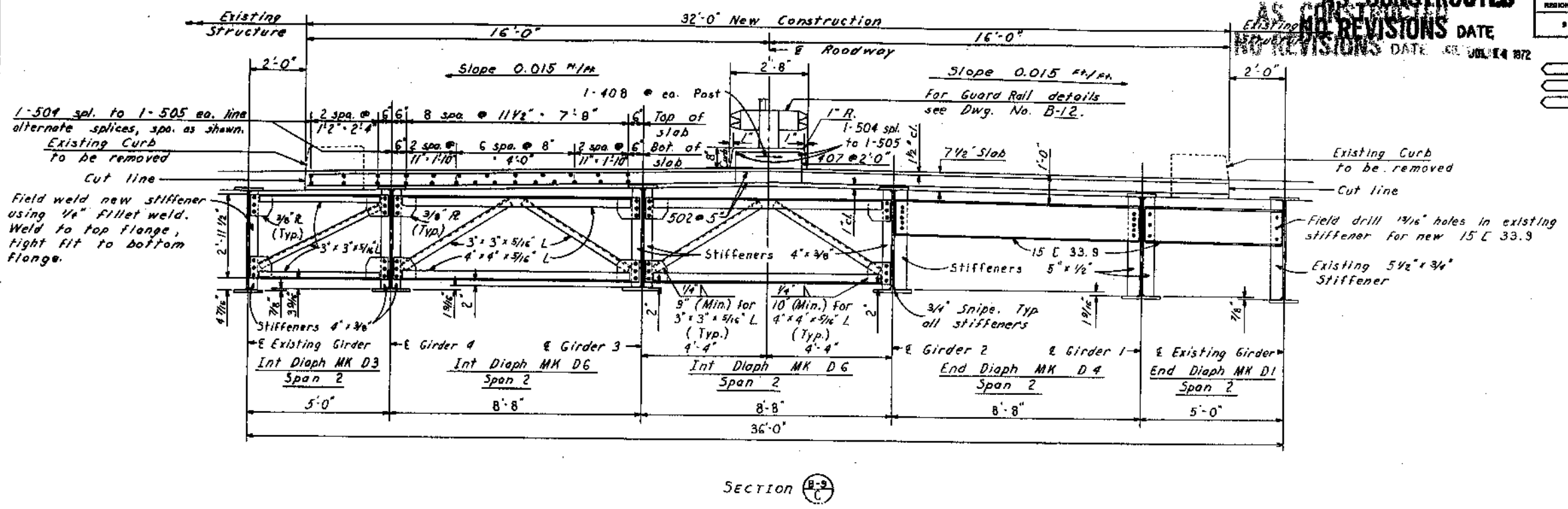
Notes:
407 may be placed after slab is poured but before initial set takes place.
Special care shall be exercised in removing portions of the existing structure to preserve the existing reinforcing steel, which shall be cleaned and straightened and project a minimum of 24 bar diameters into new construction.
Equipment used in removing portions of the existing structure shall be approved by the engineer.
For details of bearings see Dwg No B 12.

DIVISION OF HIGHWAYS		
SUPERSTRUCTURE DETAIL		
Approved:	Designer: G. Singh	Detailer: P. Steinhilber
Bridge Engineer:	Structure Number: F-16-EG	
Date:		DWG. No. B 9 OF 12

AS CONSTRUCTED
NO REVISIONS
 DATE: JUL 14 1972

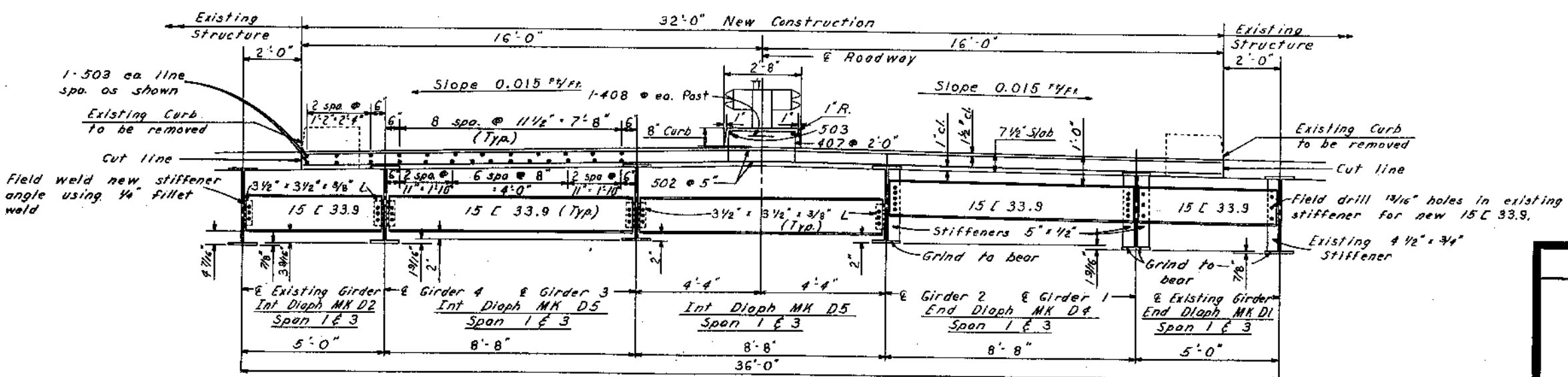
FEDERAL ROAD DISTRICT NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	COLORADO	U 006-6(2)	38	

REVISIONS	



SECTION C-C

INITIAL	DATE	DESIGNED BY	CHECKED BY
C.S.	7-2-70	C.S.	C.S.
H.C.S.	1-7-71	H.C.S.	H.C.S.



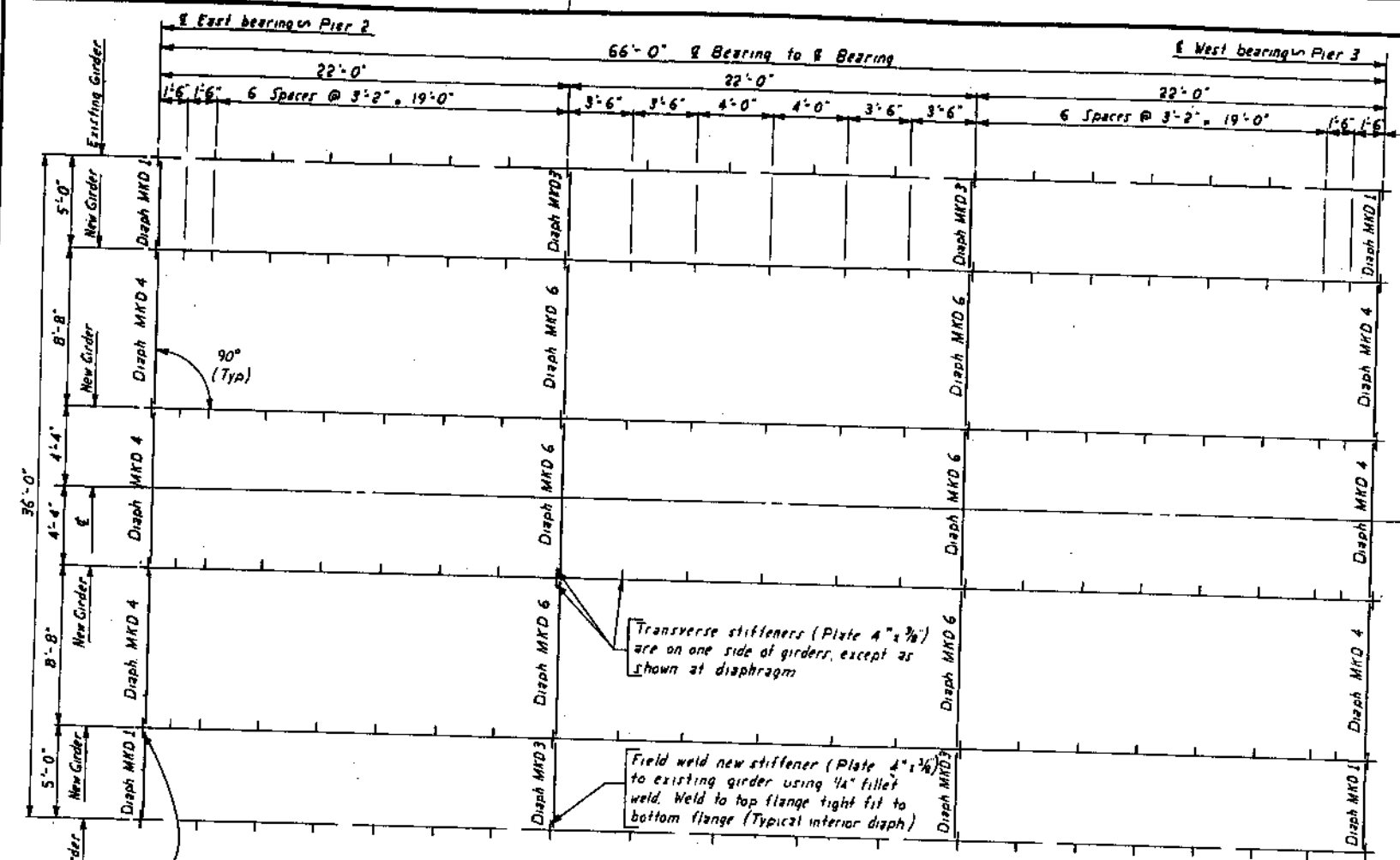
SECTION B-B

DIVISION OF HIGHWAYS

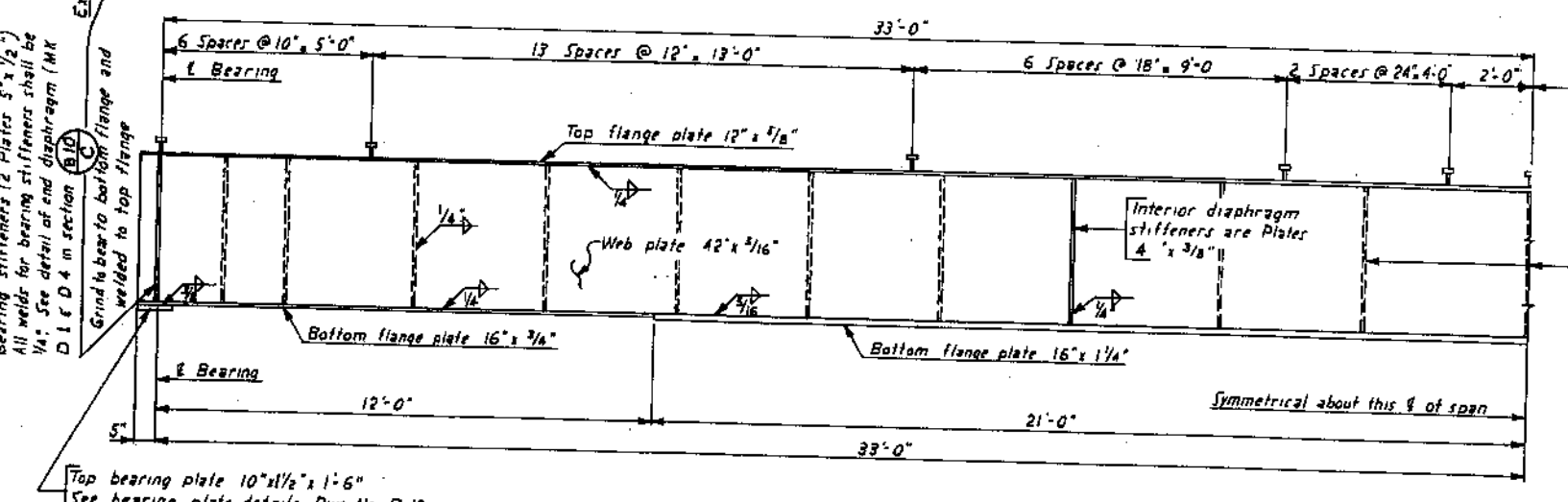
SUPERSTRUCTURE SECTIONS

Approved:	Designer: G. Singh	Detailer: H. Sharpley
Bridge Engineer:	Structure Numbers: F-16-EQ	
Date:	F-16-ER	
	DWG. No. B 10	OF 12

DESIGNED BY	DATE	CHECKED BY	DATE
PPS	11/70	PPS	2-71
QUANTITIES BY		QUANTITIES BY	
PPS		PPS	2-71
DETAILS BY		DETAILS BY	
PPS		PPS	2-71



FRAMING PLAN SPAN 2

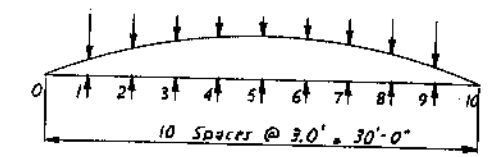
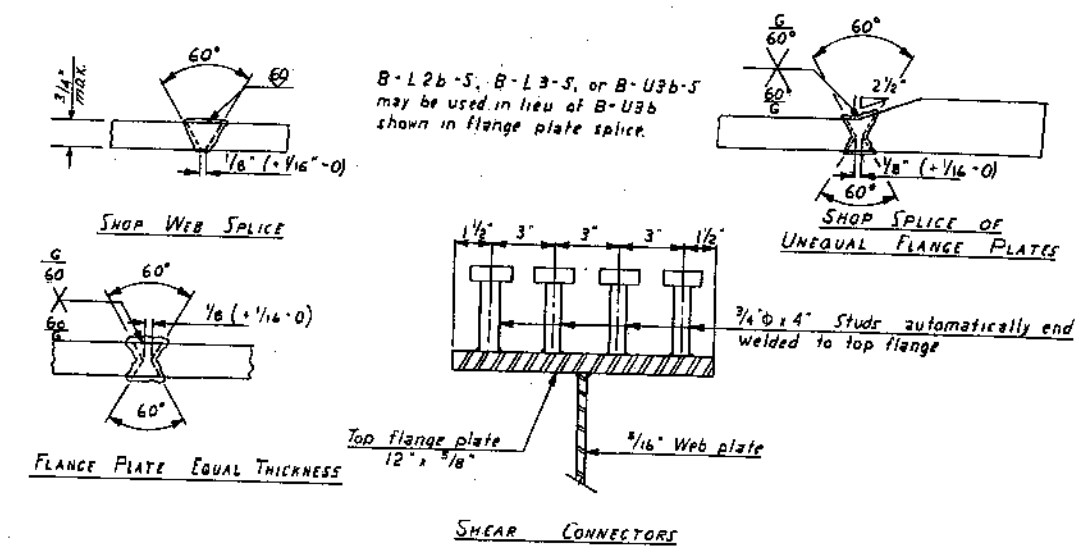


GIRDER DETAIL SPAN 2

ALREADY CONSTRUCTED
NO NO IMPROVEMENTS DATE JUL 14 1972

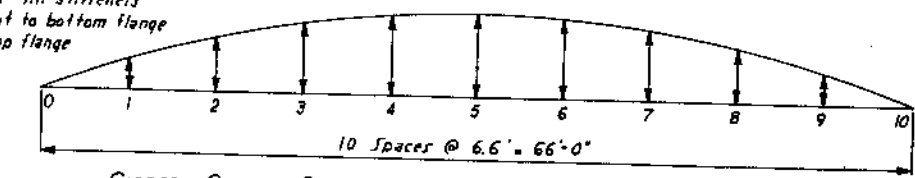
FEDERAL ROAD DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
COLORADO	U 006-6(2)	39	

REVISIONS	



SLAB THICKENING DIAGRAM SPAN 1 & 3
 (See table below)

Point	0	1	2	3	4	5	6	7	8	9	10
Dead load deflection	0	1/8"	1/8"	1/8"	3/16"	3/16"	3/16"	1/8"	1/8"	1/16"	0
Vertical curve correction	0	1/16"	1/16"	1/8"	1/8"	1/8"	1/8"	1/16"	1/16"	1/16"	0
Slab thickening	0	1/8"	3/16"	1/4"	3/16"	3/16"	3/16"	1/4"	3/16"	1/8"	0



GIRDER CAMBER DIAGRAM SPAN 2
 Note: Girder camber diagram above is typical for all girders in span 2. Cut girder web to camber, as shown on bottom line of table below. Slab remains constant 7 1/2" thick.

Point	1	2	3	4	5	6	7	8	9	10
Dead load deflection	3/8"	3/8"	13/16"	13/16"	1"	13/16"	13/16"	3/8"	3/8"	0
Vertical curve correction	3/16"	3/16"	1/2"	9/16"	9/16"	9/16"	1/2"	3/16"	3/16"	0
Girder web camber	3/16"	1"	1 1/16"	1 1/2"	1 1/2"	1 1/16"	1"	3/16"	3/16"	0

DIVISION OF HIGHWAYS

DETAILS OF GIRDERS

Approved: _____
 Designer: G. Singh
 Detailer: P. Seythoum

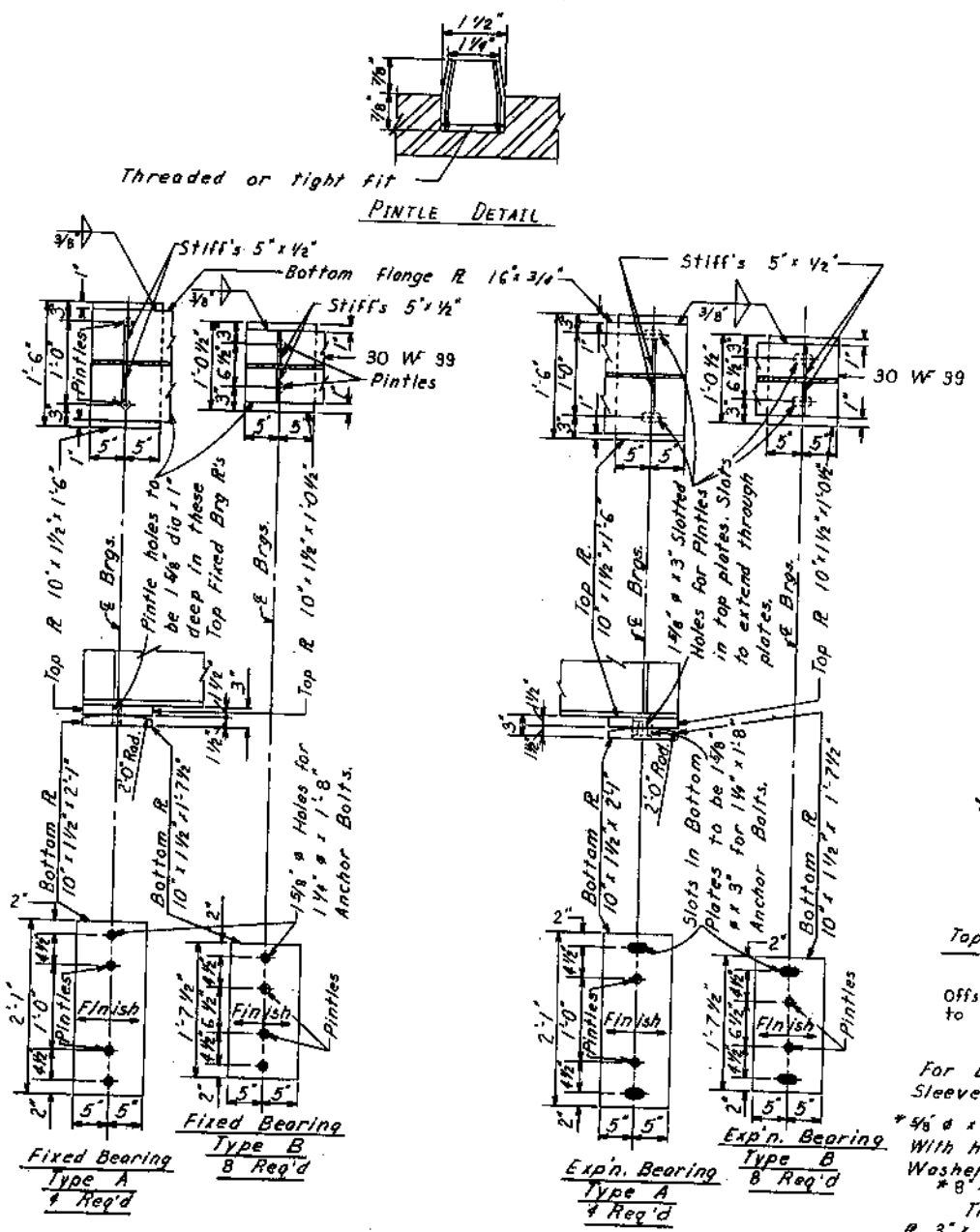
Structure: F-16-80
 Bridge Number: F-16-80
 Date: _____

DWG. No. B 11 OF 12

AS CONSTRUCTED
NO REVISIONS DATE JUL 14 1972

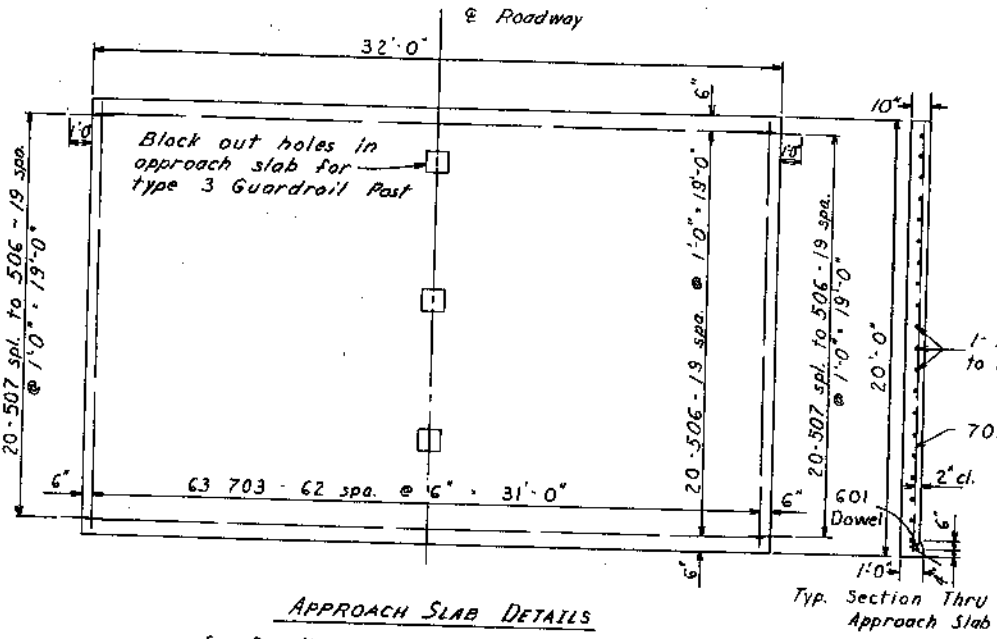
FEDERAL ROAD REGION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	COLORADO	U 006-6 (2)	40	

REVISIONS	



DETAILS OF BEARINGS

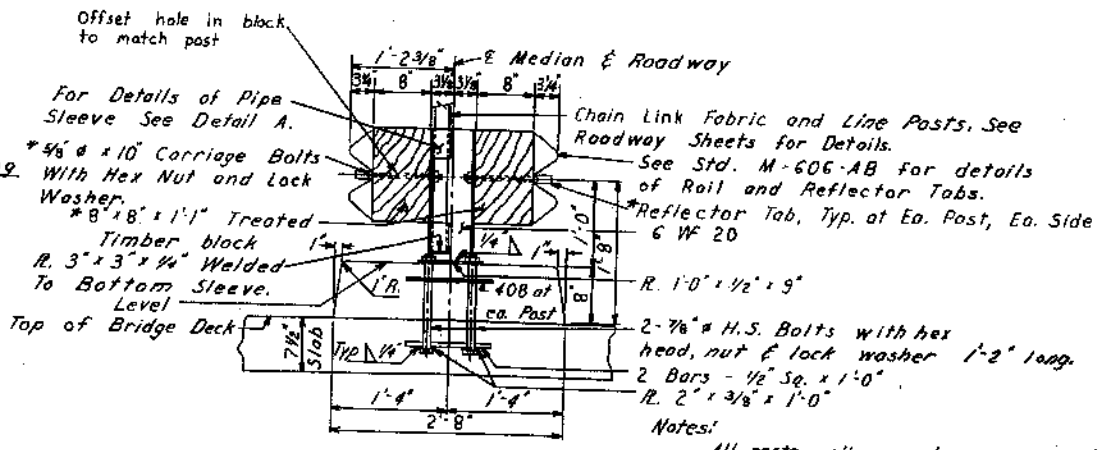
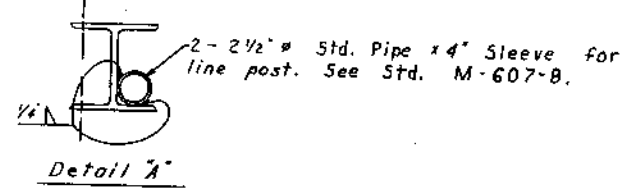
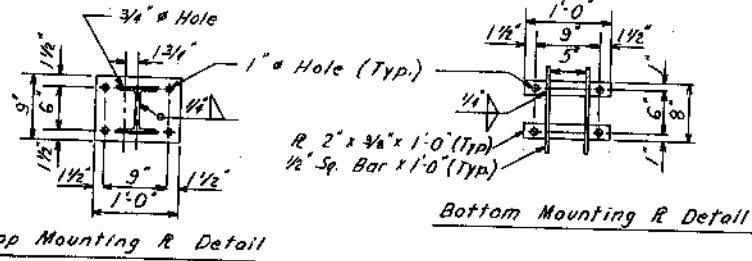
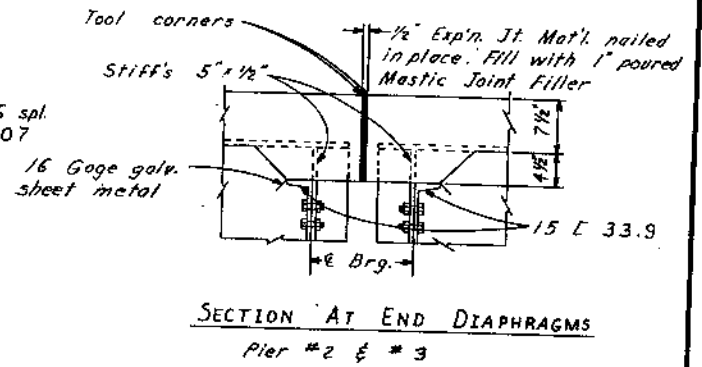
Note:
 Type A Fixed and Exp'n. Bearings are used under girders of span 2. Type B Fixed and Exp'n. Bearings are used under girders of spans 1 and 3.



APPROACH SLAB DETAILS

See Dwg. No. B 5 for Summary of Quantities

Note: Drill and Grout 507 Bars into existing approach slabs. All modifications of the existing approach slab to be included in the bid price for Item No. 412 Concrete Pavement 10".



DETAIL OF MEDIAN AND GUARD RAIL

No. Guardrail Post req'd.	22	12'-6"
No. Guardrail Pcs. req'd.	20	4'-0"
No. Guardrail Pcs. req'd.	2	4'-0"

Notes:
 All posts, clips, anchor assemblies, anchor bolts, nuts, and washers shall be galv. after fabrication in accordance with the specifications. Lap splices in direction of traffic. Aluminum guard rail 0.125" thick will be an acceptable equivalent for steel guard rail to be included in the bid price for item 606, Guard Rail, Type 3A (Double).

DIVISION OF HIGHWAYS

MISCELLANEOUS DETAILS

Approved:	Designer: G. Singh	Checker: K. Sharpley
Bridge Engineer:	Structures: F-16-EQ	
Date:	Numbers: F-16-ER	
	DWG. No. B 12	OF 12

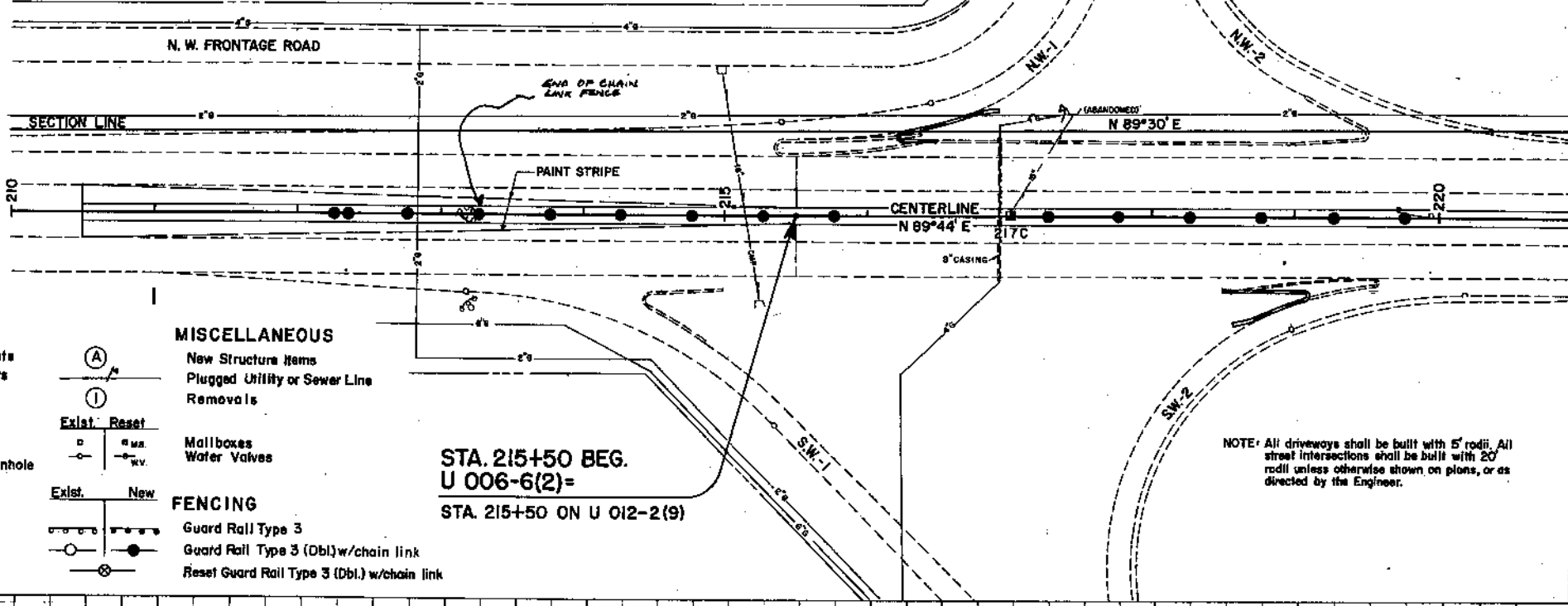
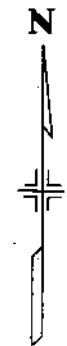
DATE	INITIALS	CHECKED BY	DATE	INITIALS	CHECKED BY
12-70	G.S.	DESIGNED BY	12-71	G.S.	DESIGNED BY
12-71	R.G.S.	CHECKED BY	12-71	R.G.S.	CHECKED BY
12-71	R.G.S.	QUANTITIES BY	12-71	R.G.S.	QUANTITIES BY
12-71	R.G.S.	REVISIONS BY	12-71	R.G.S.	REVISIONS BY

AS CONSTRUCTED WITH REVISIONS 7/11/72

SECTION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
	COLORADO	U 006-6(2)	41	

DRAINAGE, FENCING AND UTILITIES

STATE FORCES
211-100 Reel L, Identification
Sign Rt.



STA. 215+50 BEG.
U 006-6(2)=
STA. 215+50 ON U 012-2(9)

NOTE: All driveways shall be built with 5' radii. All street intersections shall be built with 20' radii unless otherwise shown on plans, or as directed by the Engineer.

UTILITY LINES

- Tel. & Tel. lines (underground)
- Gas lines
- Water lines

CURBS

- Curb & Gutter, Type 2 (Section I B)
- Curb & Gutter, Type 2 (Section II B)
- Curb & Gutter, Type 2 (Section II M)
- Curb Type 2 8' Barrier (Section B)

LEGEND

- STORM SEWERS**
 - Exist. lines, Manholes & Inlets
 - New lines, manholes & inlets
 - Inlet & Manhole Adjustment
- SANITARY SEWERS**
 - Exist. Sanitary Sewer & Manhole
 - Exist. Manhole adjustment
 - New lines & Manhole
- MISCELLANEOUS**
 - (A) New Structure Items
 - (I) Plugged Utility or Sewer Line
 - (V) Removals
 - Mailboxes
 - Water Valves
- FENCING**
 - Guard Rail Type 3
 - Guard Rail Type 3 (Dbl.) w/chain link
 - Reset Guard Rail Type 3 (Dbl.) w/chain link

PLAN

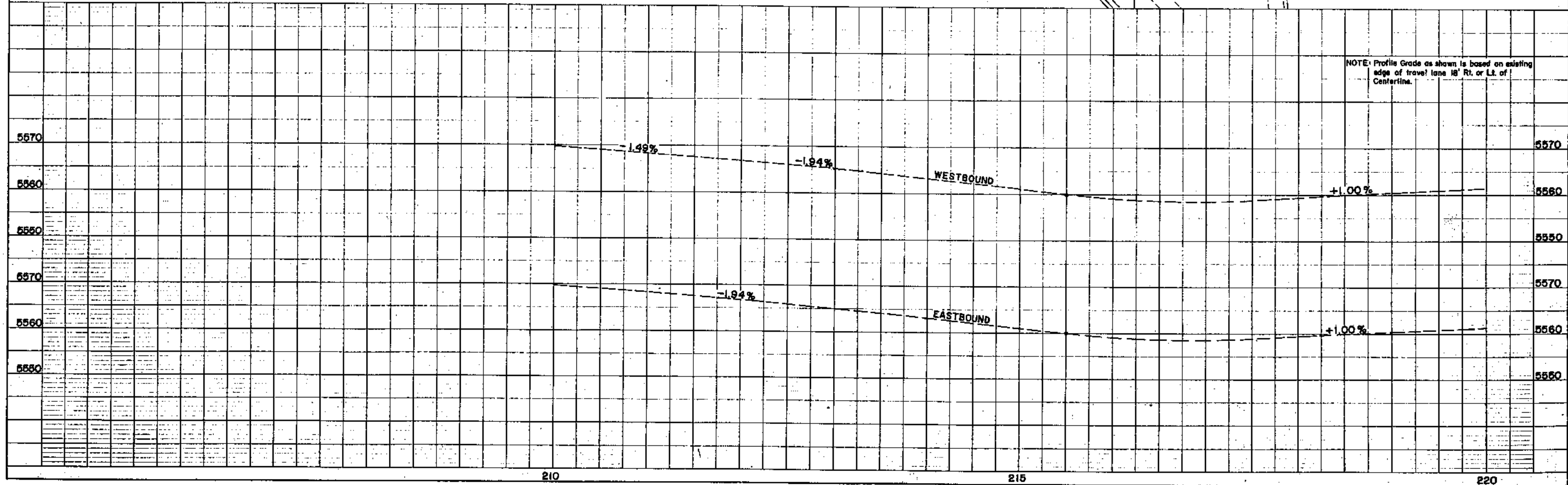
DATE	
BY	
CHECKED	
APPROVED	
REVISIONS	

NOTE: BOOK NO. OF PLAN SHEETS

PROFILE

DATE	
BY	
CHECKED	
APPROVED	
REVISIONS	

NOTE: BOOK NO. OF PROFILE SHEETS

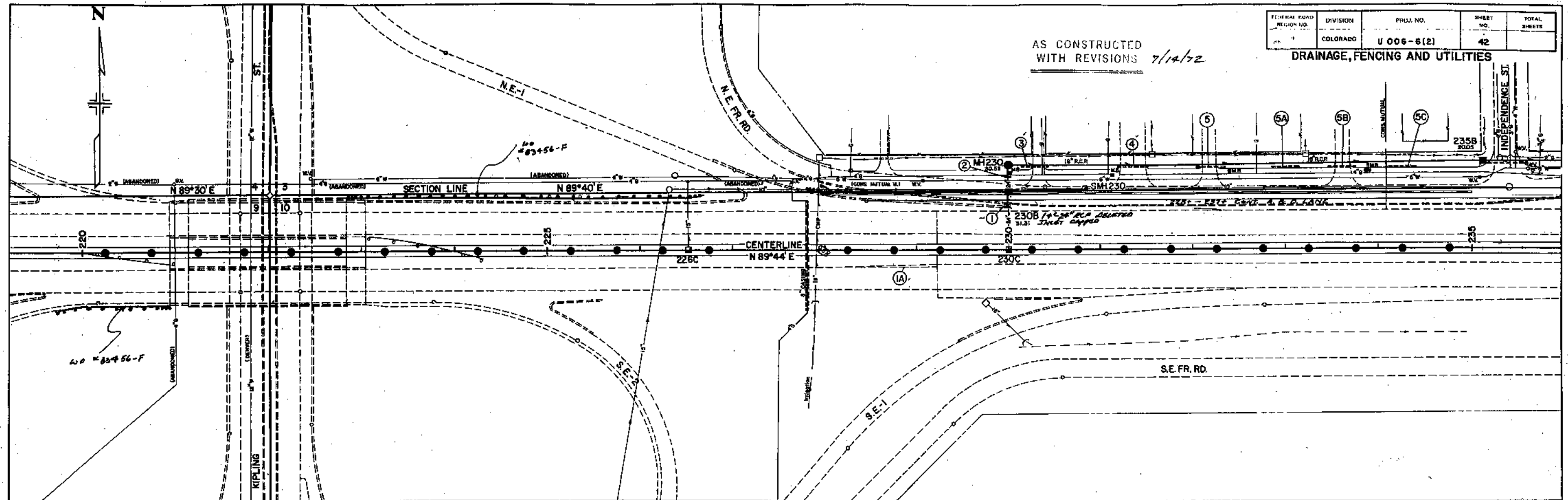


FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	U 006-6(2)	42	

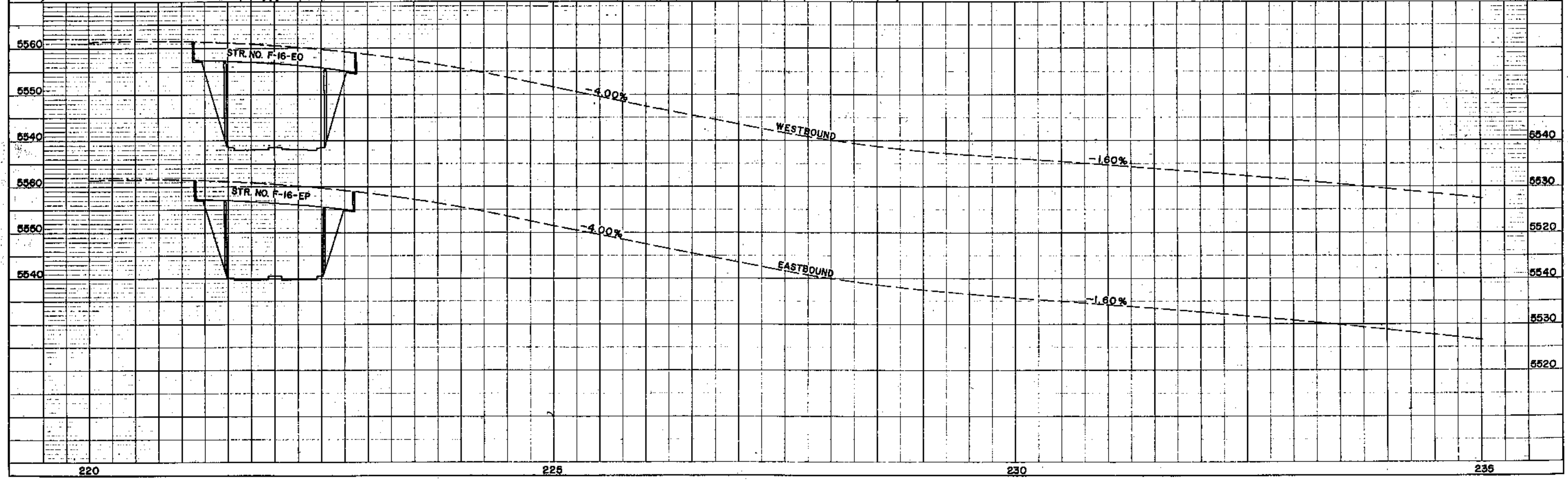
AS CONSTRUCTED
 WITH REVISIONS 7/14/72

DRAINAGE, FENCING AND UTILITIES

PLAN
 DRAWN BY: []
 CHECKED BY: []
 DATE: []



PROFILE
 DRAWN BY: []
 CHECKED BY: []
 DATE: []



FEDERAL ROAD DISTRICT NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
7	COLORADO	U 006-6(2)	43	

AS CONSTRUCTED WITH REVISIONS 7/15/92

DRAINAGE, FENCING AND UTILITIES

PLAN

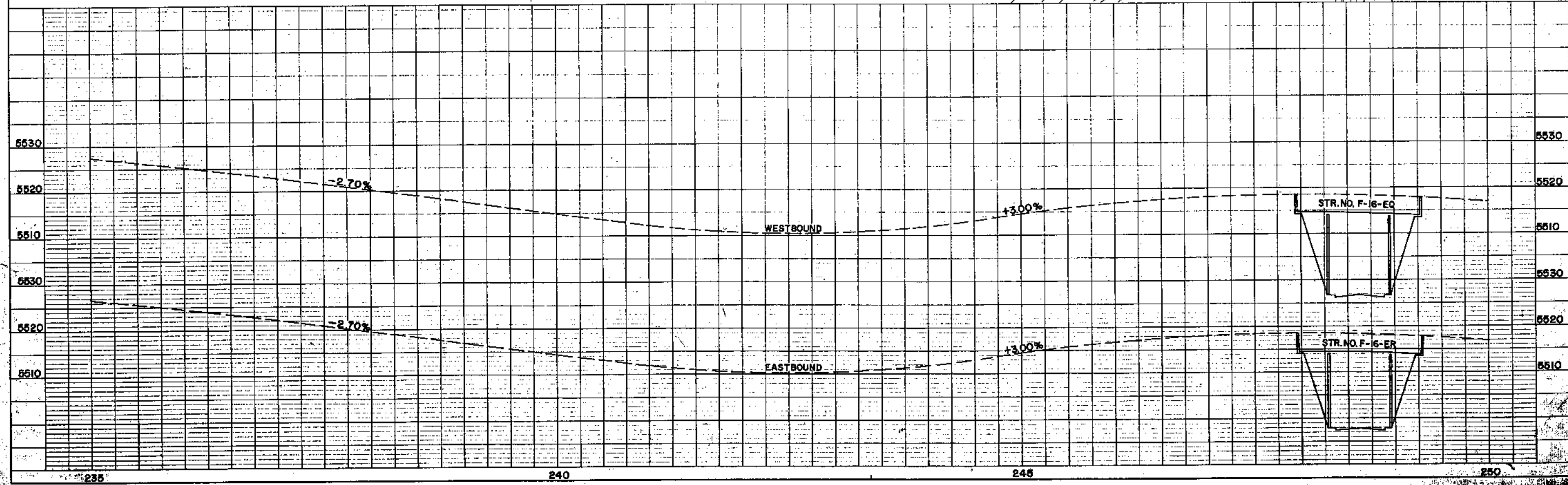
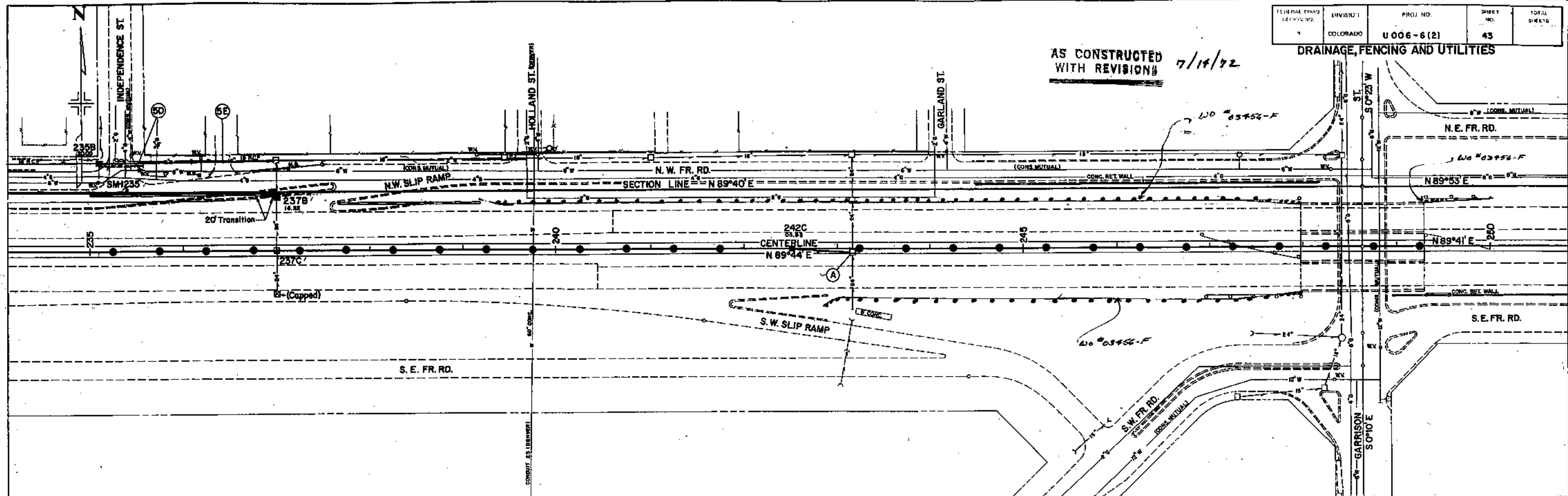
DATE	
BY	
CHECKED	
APPROVED	

NOTE BOOK NO. 109

PROFILE

DATE	
BY	
CHECKED	
APPROVED	

NOTE BOOK NO. 109



FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	COLORADO	U 006 - 6(2)	44	

AS CONSTRUCTED WITH REVISIONS 7/14/72

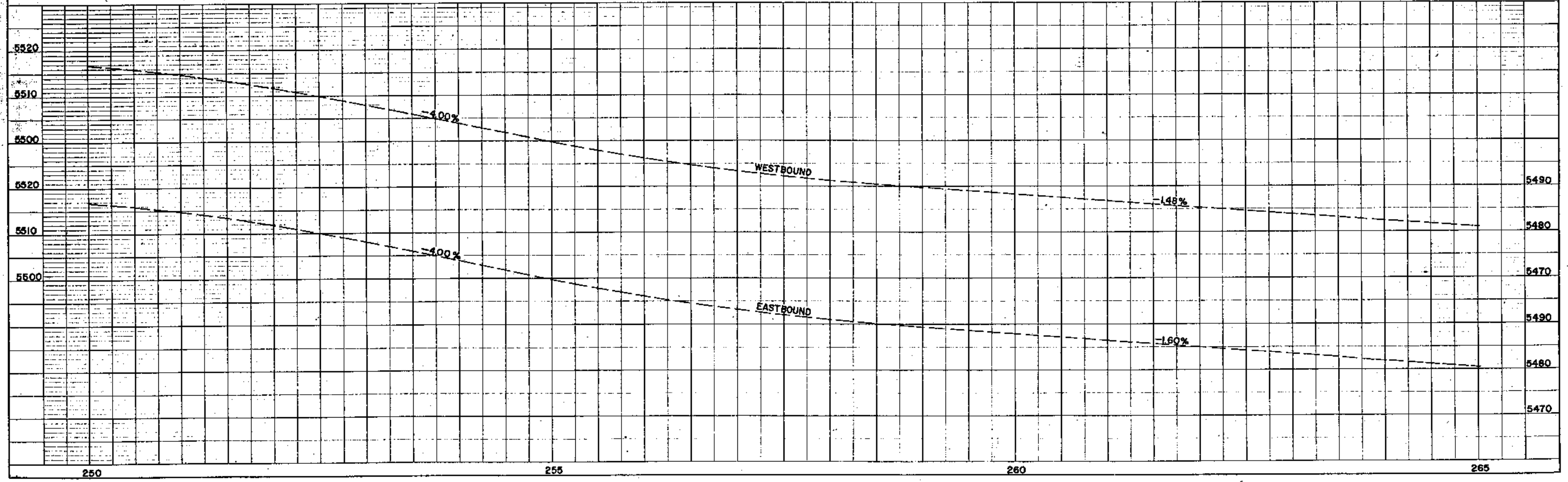
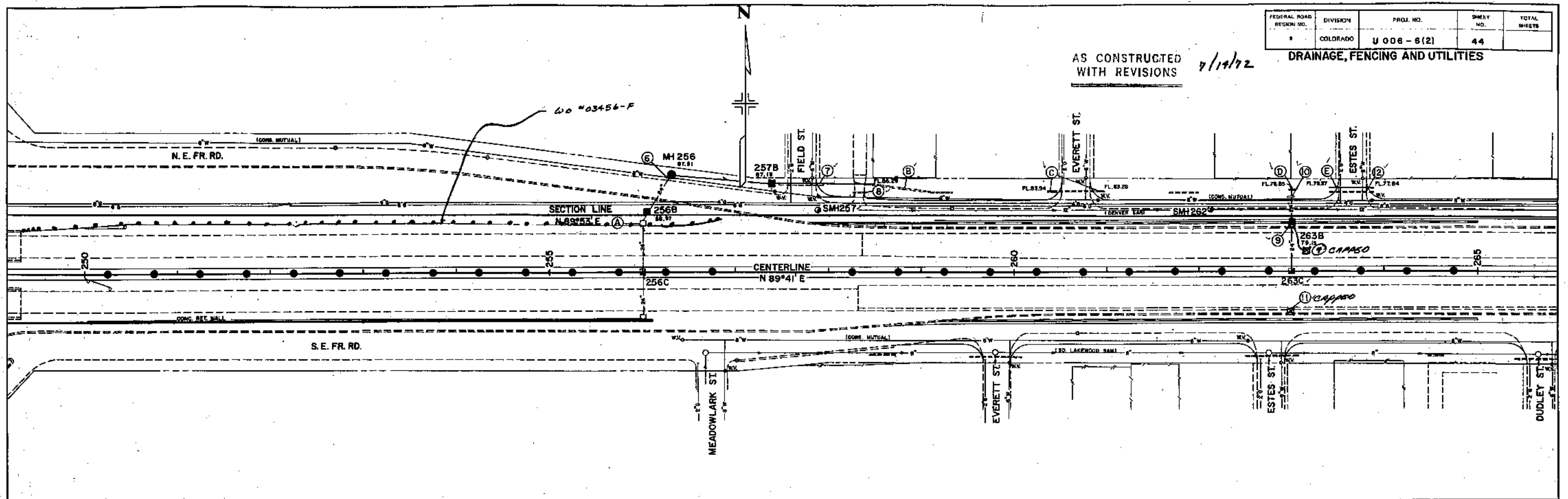
DRAINAGE, FENCING AND UTILITIES

PLAN

DATE	
BY	
CHECKED	
APPROVED	
NO. OF SHEETS	
NO. OF THIS SHEET	

PROFILE

DATE	
BY	
CHECKED	
APPROVED	
NO. OF SHEETS	
NO. OF THIS SHEET	

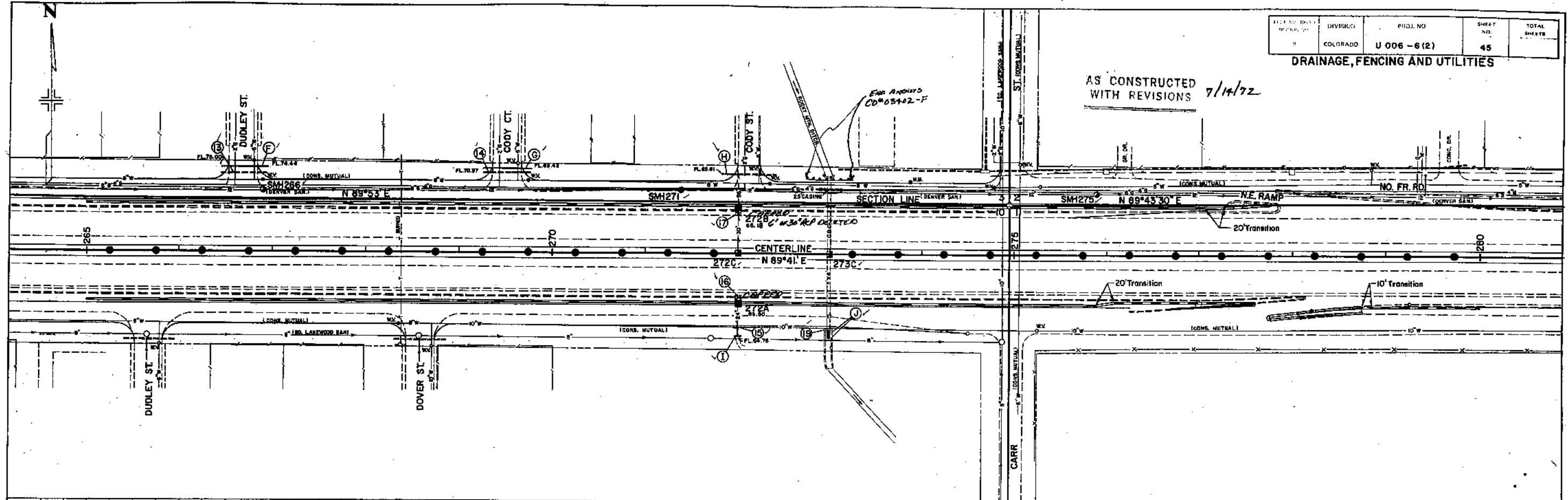


SECTION NO.	DEVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	COLORADO	U 006 - 6 (2)	45	

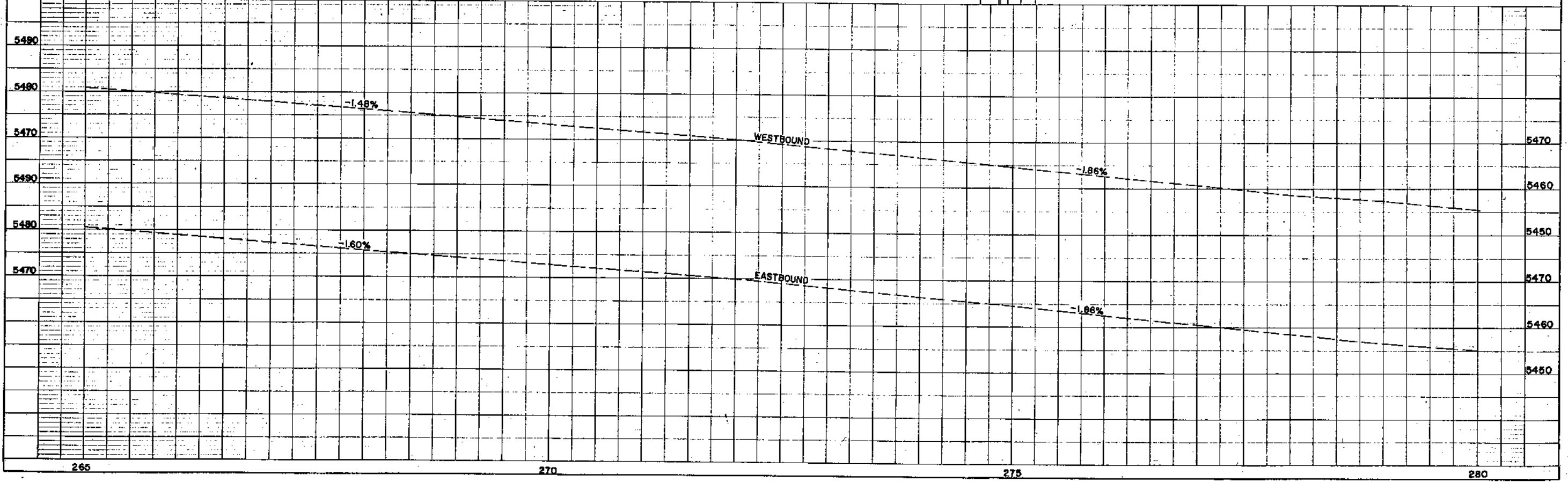
DRAINAGE, FENCING AND UTILITIES

AS CONSTRUCTED
 WITH REVISIONS 7/14/72

PLAN
 DATE
 DRAWN BY
 CHECKED BY
 IN CHARGE
 NO.



PROFILE
 DATE
 DRAWN BY
 CHECKED BY
 IN CHARGE
 NO.



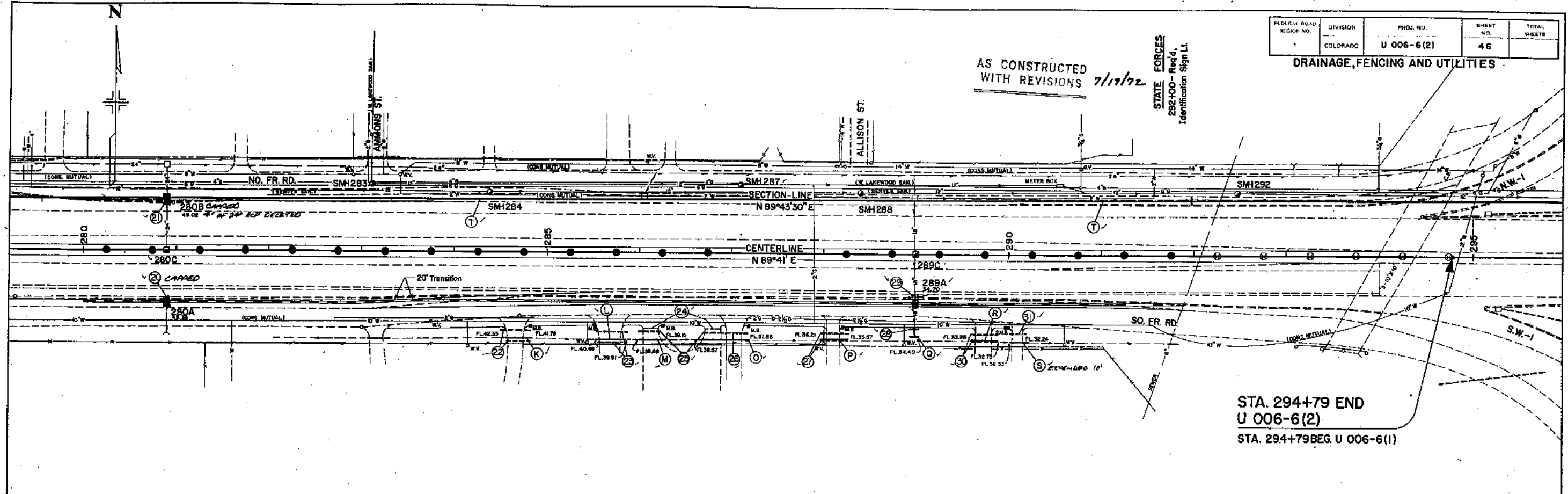
FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
5	COLORADO	U 006-6(2)	46	

DRAINAGE, FENCING AND UTILITIES

AS CONSTRUCTED
 WITH REVISIONS 7/17/72

STATE FORCES
 292-100 - Red 4,
 Identification Sign Lt.

PLAN
 DRAWN BY: []
 CHECKED BY: []
 DATE: []
 NO. []



STA. 294+79 END
 U 006-6(2)
 STA. 294+79BEG. U 006-6(1)

PROFILE
 DRAWN BY: []
 CHECKED BY: []
 DATE: []
 NO. []

