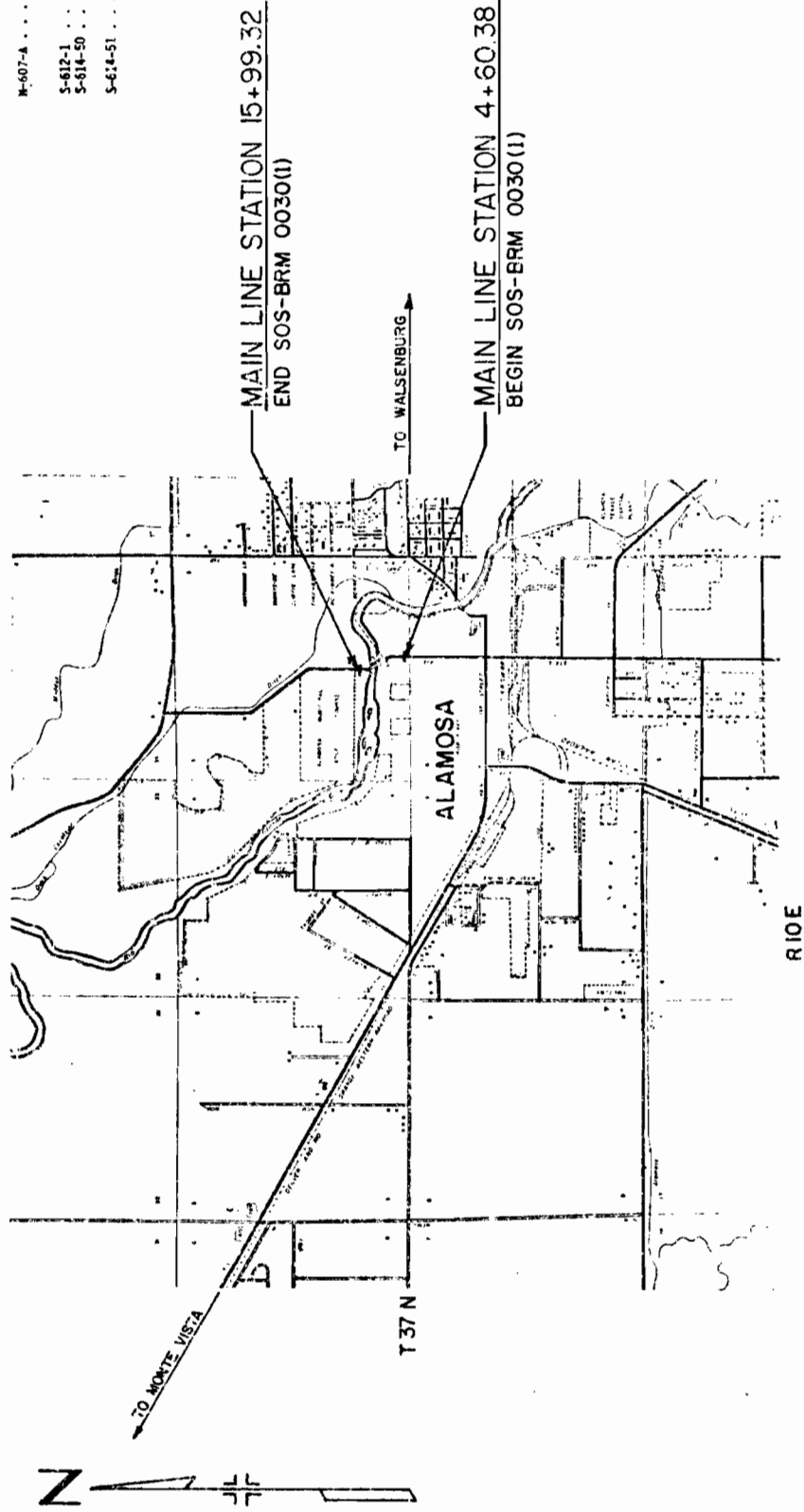


STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS—STATE OF COLORADO

MAR 28 1970

PLAN AND PROFILE OF PROPOSED
FEDERAL AID PROJECT NO. SOS-BRM 003C(1)
STATE STREET, CITY OF ALAMOSA
ALAMOSA COUNTY

SCALES OF ORIGINAL DRAWINGS
ON PLAN, 1" = 40 FT. 1/4" = 20 FT.
ON PROFILE 1" = 40 FT. HORIZONTAL
1" = 5 FT. VERTICAL
GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD



SCALE IN MILES
0 0.5 1 1.5
SCALE IN KILOMETERS
0 0.5 1 1.5

DESIGN DATA		12° 00'
MAXIMUM DEGREE OF CURVE		3.90 %
MAXIMUM GRADE		260'
MINIMUM S.S.D. HORIZONTAL		290'
MINIMUM S.S.D. VERTICAL		30 M.P.H.
MAXIMUM DESIGN SPEED		1400
1977 ADT		

TABULATION OF PROJECT LENGTH		
STATION	LINEAR FEET	
	ROADWAY	MAJOR STRUCTURE
4 + 60.38 BEGIN SOS-BRM 003C(1)	410.76	
8 + 71.14 BRIDGE		367.72
12 + 38.86		
15 + 99.32 END SOS-BRM 003C(1)	360.46	
TOTAL	771.22	367.72
SUMMARY		
PROJECT TOTAL (NET AND GROSS)	LIN. FT.	MILES
	1136.94	0.216

PROJECT NO.	SOS-BRM 003C(1)
DIVISION	ALAMOSA
SECTION	1

NO REVISIONS	REVISIONS
	1. 10-27-62
	2. 10-27-62
	3. 10-27-62
	4. 10-27-62
	5. 10-27-62
	6. 10-27-62
	7. 10-27-62
	8. 10-27-62
	9. 10-27-62
	10. 10-27-62

INDEX OF SHEETS
1. TITLE SHEET
2. STANDARD PLANS LIST
3. GENERAL NOTES AND TABULATIONS
4. SUMMARY OF APPROXIMATE QUANTITIES
5. AREA PLAN
6. PLAN AND PROFILE
7. SOUTH APPROACH
8. NORTH APPROACH, CONSTRUCTION SIGNING
9. DETAILED BRIDGE PLANS

SHEET NO.

INDEX OF SHEETS

STANDARDS

- M-203-2C SUPERELEVATION OF CURVES (CROWNED HIGHWAYS) 9-17-61 R-62
- M-203-5S SUPERELEVATION OF CURVES (STREETS) 9-17-61 R-61
- M-203-6C GRADE RAIL, TYPE 3, 1:1 GRADE FROM LOCAL ROADS AND STREETS (4 SHEETS) 7-21-60 R-40
- M-207-4A WIRE FENCES AND GATES (2 SHEETS) 2-19-60 R-40
- S-612-1 TYPICAL DELINEATOR INSTALLATIONS (4 SHEETS) 9-01-61 R-01
- S-614-50 TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION (4 SHEETS) 9-01-61 R-01
- S-614-51 BARRICADES, DRUMS, CONCRETE BARRIER (TEMP) & VERTICAL PANELS 9-01-61 R-01

COUNTY OF ALAMOSA
BOARD OF COMMISSIONERS

APPROVED

DISTRICT COMMISSIONER DATE

AS CONSTRUCTED INFORMATION

CONTRACTOR Barbour Bros. Inc.
PROJECT ENGINEER J. T. Anderson
(PROJECT OR RESIDENT)
PROJECT STARTED April 19, 1968
PROJECT COMPLETED Oct. 29, 1968
AS CONSTRUCTED PLANS APPROVED W. L. Anderson
DATE Dec. 19, 1968

DIVISION OF HIGHWAYS

APPROVED

ASST. CHIEF ENGINEER DATE

DIST. 5 / G.W.O.

AS CONSTRUCTED

NO REVISIONS 10-14-88 REVISED 10-14-88 VOID 10-14-88

FEDERAL ROAD
SECTION NO.
VIII

DIVISION
COLORADO

PROJECT NO.
305-244 00-50(1)

SHEET
NO.
2

TOTAL
SHEETS
2

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

PLAN NUMBER	TITLE	PAGE	PLAN NUMBER	TITLE	PAGE
☒ M-100-A	STANDARD SYMBOLS	1	☐ M-607-C	PICKET SNOW FENCE	57
☐ M-107-A	TEMPORARY EROSION CONTROL	2	☐ M-607-D	BARRIER FENCE	58
☐ M-203-B	APPROACH ROADS, FLARING, CUT SLOPE TREAT- MENT, BRIDGE & CREST WIDENING	3	☐ M-607-E	DEER FENCE AND GATE	59
☐ M-203-C	DITCH TYPES	4	☐ M-608-A	CURB RAMPS FOR THE HANDICAPPED	61
☐ M-203-SC	SUPERELEVATION OF CURVES - CROWNED HIGHWAYS	5	☐ M-609-A	CURBS AND GUTTERS	62
☐ M-203-SD	SUPERELEVATION OF CURVES - DIVIDED HIGHWAYS	6	☐ M-611-D	CATTLE GUARD - WELDED GRILL UNITS - 10' THRU 42' ROADWAYS	63
☐ M-203-SS	SUPERELEVATION OF CURVES - STREETS	7	☒ M-612-A	MARKER POSTS AND BENCH MARKS	65
☒ M-206-AB	EXCAVATION AND BACKFILL FOR STRUCTURES	8	☐ M-613-AA	HIGHWAY LIGHTING	66
☐ M-214-A	PLANTING DETAILS	11	☐ M-615-A	EMBANKMENT PROTECTOR, TYPES 3 & 4	67
☐ M-412-AB	CONCRETE PAVEMENT JOINTS	12	☐ M-615-A	EMBANKMENT PROTECTOR, TYPE 5	68
☐ M-504-B	STEEL CRIBBING	13	☐ M-616-S	INVERTED SIPHON (ALSO USE M-603 OR M-604 AS REQUIRED)	69
☐ M-506-A	GABIONS AND SLOPE MATRESS	14	☐ M-620-A	FIELD LABOFATORY - CLASS 2	70
☐ M-510-AB	STRUCTURAL PLATE CULVERT PIPE - H-20 LOADING	15	☐ M-707-CB	TYPICAL ALTERNATE COUPLING BANDS FOR CORRUGATED CULVERT PIPE	71
☐ M-601-BC1	SINGLE CONCRETE BOX CULVERT	17			
☐ M-601-BC2	DOUBLE CONCRETE BOX CULVERT	18	☐ S-612-1	TYPICAL DELINEATOR INSTALLATIONS	72
☐ M-601-BC3	TRIPLE CONCRETE BOX CULVERT	19	☐ S-614-1	TYPICAL GROUND SIGN PLACEMENT	76
☐ M-601-CH	HEADWALL FOR PIPE CULVERTS	20	☐ S-614-2	CLASS I GROUND SIGN INSTALLATIONS	77
☐ M-601-KA	TYPE "S" SADDLE HEADWALL FOR PIPE CULVERTS	21	☐ S-614-3	CLASS II GROUND SIGN INSTALLATIONS	78
☐ M-601-L	HEADWALL, INTERCEPTING HEADWALL AND CULVERT OUTLET PAVING	23	☐ S-614-4	CLASS III SIGNS, LAMINATED ALUMINUM PANELS AND POST SPACING TABLE	79
☐ M-601-WW	WINGWALLS FOR PIPE OR BOX CULVERTS	24	☐ S-614-5	BREAK-AWAY SIGN SUPPORT DETAILS FOR GROUND SIGNS	81
☐ M-603-CA	CONCRETE AND METAL END SECTIONS	25	☐ S-614-6	CONCRETE FOOTINGS AND SIGN ISLANDS FOR CLASS III SIGNS	83
☐ M-603-MA	METAL CULVERT PIPE - H-20 LOADING	26	☐ S-614-10	TYPICAL MARKER ASSEMBLY INSTALLATIONS	85
☐ M-603-RC	REINFORCED CONCRETE PIPE	27	☐ S-614-11	MILEPOST SIGN AND INSTALLATION	86
☐ M-604-AB	CONCRETE INLET, TYPE 13	28	☐ S-614-12	STRUCTURE NUMBER INSTALLATION (BRIDGE INFORMATION SHEET)	87
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☐ M-606-B	GUARD RAIL, TYPE 5, STEEL BARRIER, BOX BEAM	44	☐ S-614-51	BARRICADES, DRUMS, CONCRETE BARRIER (TEMP) & VERTICAL PANELS	100
☐ M-606-D	GUARD RAIL, TYPE 4, CONCRETE BARRIER, CAST-IN-PLACE	47	☒ S-627-1	TYPICAL PAVEMENT MARKINGS	101
☐ M-606-EA	GUARD RAIL, TYPE 4, CONCRETE BARRIER, PRECAST-PORTABLE	48			
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DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

STANDARD PLANS LIST
M & S STANDARDS — JANUARY, 1980

SUMMARY OF EARTHWORK QUANTITIES

INDEX	PROJECT TOTALS	
	CU. YD.	CU. YD.
EMBANKMENT MATERIAL (COMPLETE IN PLACES)		
ROADWAY	4,774	4646
TOTAL FOR PAY QUANTITY	4,774	4646
*COMPACTON (ASHTO 199)		
EMBANKMENT (NET)	4,774	
BASE OF CUTS AND FILLS	1,004	
TOTAL	5,043	
*ROADWAY QUANTITIES BALANCE		
EXCAVATION		
UNCLASSIFIED (FROM ROADWAY)	2,041	
FROM UNDESIGNATED SOURCE	1,704	
STRUCTURE EXCAVATION FOR RIPRAP	550	
TOTAL	5,251	
EMBANKMENT (NET)	4,774	
ROADWAY	4,774	
TOTAL	4,774	
EMBANKMENT x FACTOR (1.1)		
ROADWAY	5,251	

* FOR INFORMATION ONLY

GUARDRAIL

STATION	SIDE	GUARDRAIL TYPE B (W/3' POST SPACING)	END ANCHORAGE TYPE DE	EACH
7+55 TO 8+55 *	RIGHT	100	1	
8+10 TO 8+50 *	LEFT	50	1	
*12+45 TO 12+45	RIGHT	50	1	
*12+55 TO 13+55	LEFT	100	1	
TOTALS		300	4	4

* ATTACH TO BRIDGE RAIL
TRANSITION THE HEIGHT OF THE FIRST 25' OF APPROACH
RAIL TO MEET THE BRIDGE RAIL HEIGHT.

DELINEATORS

LOCATION	SIDE	SPACING	DELINEATOR	
			TYPE I	TYPE III
5+45	RIGHT	ISLAND	EACH	EACH
5+95	RIGHT	ISLAND	1	
0+05	RIGHT	25'	1	
7+00 TO 8+00	RIGHT	25'	3	1
12+55 TO 13+55	LEFT	05'	3	1
13+55 TO 14+05	LEFT		2	
10+15	LEFT		1	
10+10	LEFT		1	
TOTALS			15	2

TYPE I DELINEATORS: 15 CR TOTAL
TYPE III DELINEATORS: 2 - YELLOW, HAZARD MARKER

PENCING

STATION	SIDE	REMOVAL OF PENCE	REDET PENCE	PENCE WOOD	Ø 12" WOOD GATE
		LIN. FT.	LIN. FT.	LIN. FT.	EACH
0+90 TO 7+50	RIGHT	94		00	1
12+00 TO 13+15	LEFT	120			
13+15 TO 14+50	RIGHT	41	130		
TOTALS		200	130	155	73

IT IS ESTIMATED THAT 4 CORNER AND LINE BRACE POSTS
WILL BE REQUIRED FOR THIS PROJECT.

Ø FOR INFORMATION ONLY - GATE TO BE PAID
WITH ITEM 007 PENCE WOOD. SEE DETAILED SHEET D.

WETTING QUANTITIES

INDEX	BOOK	PAGE	SHEET	WETTING	M. GAL.
				BASE COURSE	3
				TOTAL FOR PAY QUANTITY	3
				* COMPACTON	224

* FOR INFORMATION ONLY.

AS CONSTRUCTED

NO REVISIONS

REVISED 10-27-82

VOID

FEDERAL ROAD
REGION NO.

DIVISION

PROJ. NO.

SHEET
NO.

TOTAL
SHEETS

XIII

COLORADO

SO-884 0030(1)

3

GENERAL NOTES

FOR PRELIMINARY PLAN QUANTITIES OF BITUMINOUS MATERIALS
THE FOLLOWING RATES OF APPLICATION WERE USED:

TACK COAT: DILUTED EMUL. ASPH. (CSS-1H) @ 0.10 GALS. PER SQ. YD.

BITUMINOUS PAVEMENT GRADING E (HAUL & ASPHALT) @ 110 LBS. PER SQ. YD. / INCH

DILUTED EMULSIFIED ASPHALT FOR TACK COAT SHALL CONSIST OF 1 PART EMULSIFIED
ASPHALT AND 1 PART WATER.

RATES OF APPLICATION SHALL BE DETERMINED BY THE ENGINEER AT THE TIME OF
APPLICATION.

COMPACTON SHALL BE ASHTO T-99.

A SKI-TYPE DEVICE AT LEAST 30 FEET IN LENGTH AND A SHORT SKI OR SHOE SHALL BE
FURNISHED WITH EACH BITUMINOUS PAVEMENT.

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

FULL-DEPTH OF ALL EMBANKMENTS.

BASES OF CUTS AND FILLS .5 FOOT.

EXCAVATION REQUIRED FOR COMPACTON OF BASES OF CUTS AND FILLS WILL BE
CONSIDERED AS SUBSIDIARY TO THAT OPERATION AND WILL NOT BE PAID FOR
SEPARATELY.

CLASS "A" CONCRETE WILL BE PERMITTED ON THIS PROJECT IN LIEU OF CLASS "A".

A CUTTING WHEEL SHALL BE USED TO OBTAIN A VERTICAL CUT NEAR THE EDGE OF EXISTING
BITUMINOUS PAVEMENT AND WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN
OTHER CONTRACT ITEMS.

FINAL SIGNING AND STRIPING WILL BE DONE BY ALAMOGA
COUNTY FORCED AT NO COST TO THE PROJECT, IN ACCORDANCE
WITH THE LATEST EDITION OF THE N.J.T.C.D.
THE REMOVED BRIDGE SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
SUBBASE AND SURFACING PLAN

STATION	2 HOT BITUMINOUS PAVEMENT (TONS)	AGGREGATE BASE COURSE CLASS 60 (TONS)
5+00 TO 0+50	44	0
0+50 TO 8+70	150	150
12+40 TO 14+00	90	125
14+00 TO 15+50	50	97
15+50 TO 16+00	11	40
7+50, 00' LEFT	0	15
13+50, 40' LEFT	13	24
TOTALS	392	481

THE SOURCE OF SURFACING MATERIALS
IS UNDESIGNATED.

NOTES: TYPICAL SECTION OF 3" HBP AND 4" ABC TO
BE USED IN ALL AREAS EXCEPT THE FOLLOWING:

(1) FINAL ELEVATION LESS THAN 3" ABOVE

EXISTING ASPHALT-USE FULL DEPTH ASPHALT.

(2) FINAL ELEVATION LESS THAN 11" ABOVE

EXISTING ASPHALT-USE 3" HBP AND FULL

DEPTH ABC, UP TO 11" ABC.

(3) PARKING AREA AT STA. 7+50, 00' LEFT-

USE 2" HBP AND 4" ABC.

(4) RAMP AT STA. 13+50, 40' LEFT - USE 2"

HBP AND 4" ABC.

(5) STABILIZATION BASED ON ALAMOGA COUNTY

STANDARDS AND CONFORMING TO C.D.O.H.

MINIMUM DEPTH FOR SURFACE AND

BASE COURSE.

SUMMARY OF APPROXIMATE QUANTITIES

3/22/82
STEEL QUANTITY
G.W.O.

AS CONSTRUCTED

NO REVISIONS
REVISED 10-29-82
VOID

FEDERAL ROAD DISTRICT NO. VIII
DIVISION COLORADO
PROJ. NO. 305-BRM 0030(1)
SHEET NO. 4
TOTAL SHEETS

INDEX	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	PLAN ROADWAY	AS CONSTR. ROADWAY	PLAN UTILITIES	AS CONSTR. UTILITIES	PLAN STRUCTURE	AS CONSTR. STRUCTURE	PROJECT TOTALS	AS CONSTR. PROJECT TOTALS	DIFS +/-	% PLAN
2 1	202	REMOVAL OF TREE	EACH	4	4					4	4	-	100
2 2	202	REMOVAL OF BRIDGE	EACH					1	1	1	1	-	100
2 3	202	REMOVAL OF FENCE	LIN. FT.	260	238					260	238	-22	91
2 4	203	EMBANKMENT MATERIAL (COMPLETE IN PLACE)	CU. YD.	4774	4646					4774	4646	-128	97
2 5-6	206	STRUCTURE EXCAVATION	CU. YD.	656	792			284	284	940	1076	+136	114
2 7	206	STRUCTURE BACKFILL (CLASS 2)	CU. YD.					184	184	184	184	-	100
2 8	209	WETTING	M GAL	8	8					8	8	-5	37
2 9	210	RESET FENCE	LIN. FT.	130	155					130	155	+25	119
2 10	210	ADJUST MANHOLE	EACH			1	1			1	1	-	100
2 11	304	AGGREGATE BASE COURSE (CLASS 6) (HAUL)	TON	457	481 ³⁵					457	481 ³⁵	+24 ³⁵	105
2 12	403	HOT BITUMINOUS PAVEMENT (GRADING E) (HAUL AND ASPHALT)	TON	392	491 ²⁶					392	491 ²⁶	+99 ²⁶	125
2 13	411	EMULSIFIED ASPHALT (CSS-1H)	GAL	81	222					81	222	+141	274
2 14	502	STEEL PILING (HP 10x42)	LIN. FT.										
2 14	502	Steel Piling Cut off	Lin. Ft.										
2 15	506	RIP RAP	CU. YD.	141	1333					1441	1333	-108	92
2 16	509	STRUCTURAL STEEL	LB					1,607	1607	1,607	1607	-	100
2 17	509	STRUCTURAL STEEL (GALVANIZED)	LB.					19,467	19467	19,467	19467	-	100
2 18	513	DRAIN PIPE (6 INCH)	LIN. FT.					23	23	23	23	-	100
2 19	515	BRIDGE EXPANSION DEVICE (0 - 2 INCH)	LIN. FT.					68	68	68	68	-	100
2 20	601	CONCRETE CLASS A (BRIDGE)	CU. YD.					228	224 ⁸¹	228	224 ⁸¹	-3 ¹⁹	98
2 21	601	CONCRETE CLASS D (BRIDGE)	CU. YD.					494	497 ¹⁹	494	497 ¹⁹	+3 ¹⁹	101
2 22	602	REINFORCING STEEL C.M.O. # 8965	LB.					132,159	141,804	132,159	141,804	+9645	107
2 23	606	GUARDRAIL TYPE B (6-8 POST SPACING)	LIN. FT.	300	300					300	300	-	100
2 24	606	END ANCHORAGE TYPE SE	EACH	4	4					4	4	-	100
2 25	607	CORNER AND LINE BRACE POST	EACH	4	4					4	4	-	100
2 26	607	FENCE WOOD	LIN. FT.	60	73					60	73	+13	121
2 27	612	DELINEATOR (TYPE I)	EACH	13	13					13	13	-	100
2 28	612	DELINEATOR (TYPE III)	EACH	2	2					2	2	-	100

RT

UTILITIES
MOUNTAIN BELL
PUBLIC SERVICE COMPANY

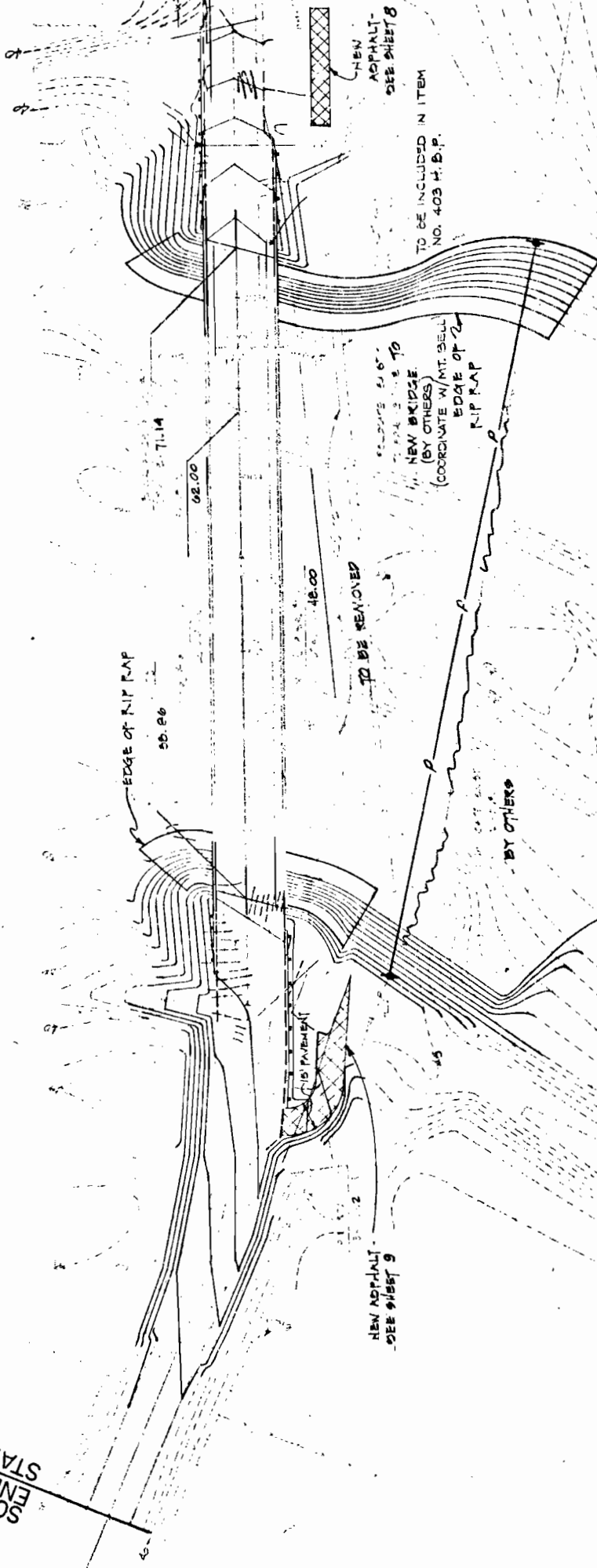
10-29-82

SOS-BRM 0030(1)

6

SOS-BRM 0030(1)
END CONSTRUCTION
STA. 15 + 99.32

SOS-BRM 0030(1)
BEGIN CONSTRUCTION
STA. 4 + 60.38



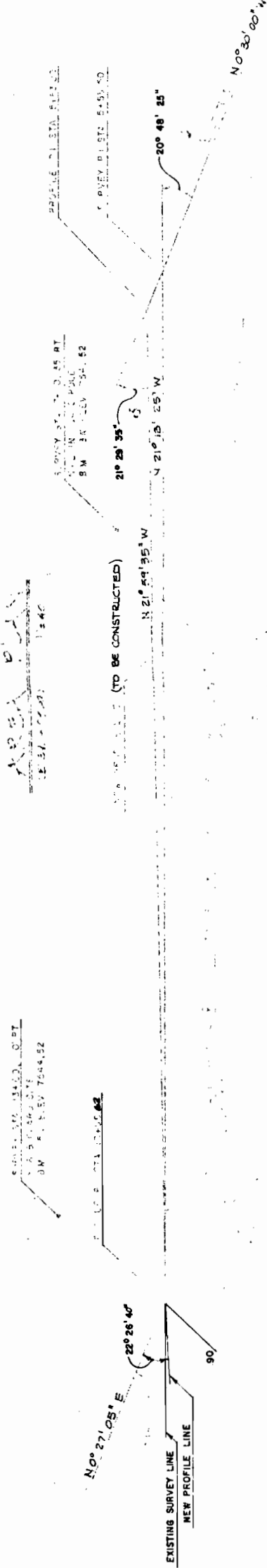
NOTE: SEE SHEET 9 FOR DETAILS
AT NORTH APPROACH

NOTE: 1. SEE SHEET 8 FOR DETAILS AT SOUTH
APPROACH.
2. EXISTING BRIDGE TO BE USED BY PUBLIC
DURING CONSTRUCTION. CONTRACTOR NOT
TO USE BRIDGE TO SET EQUIPMENT USED
TO PLACE MATERIALS.

LEGEND (EXCEPTIONS TO M-100-A)

	NEW	EXISTING
FENCE	---	---
CONTOURS	---	---
ASPHALT	---	---
GRAVEL RAIL	---	---
POWER LINE (G.H.)	---	---
TELEPHONE LINE (G.H.)	---	---
GAS LINE (U.G.)	---	---

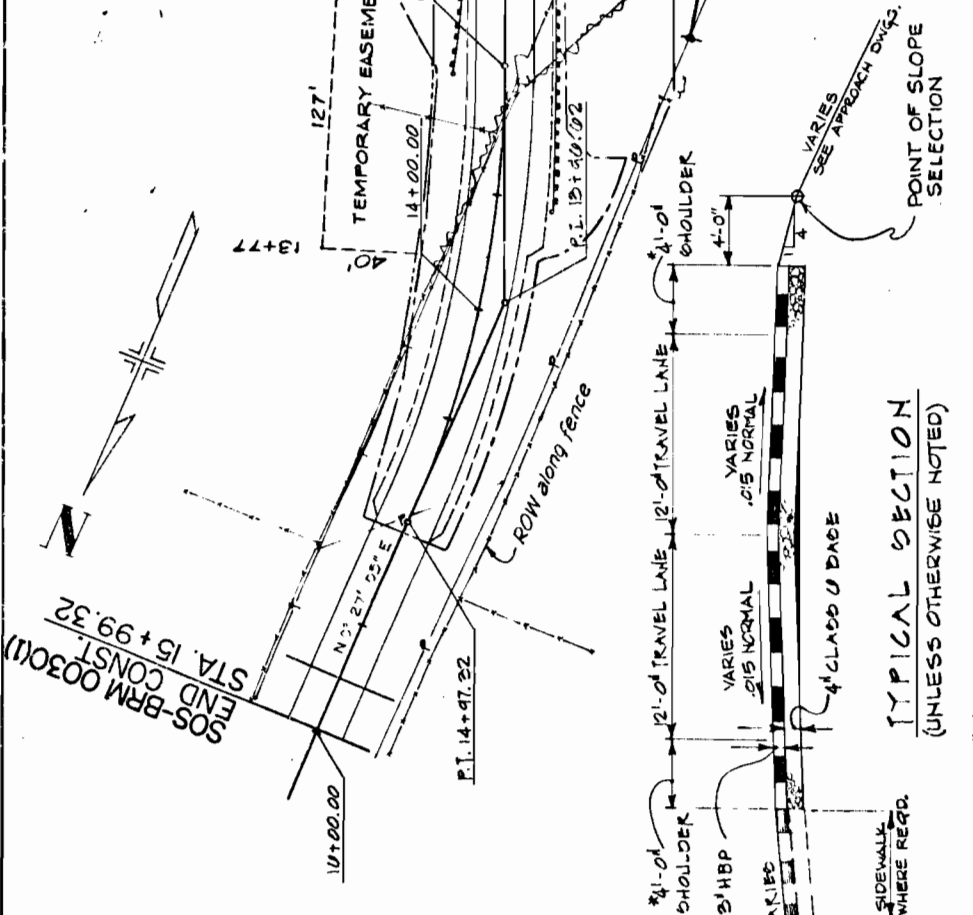
AREA PLAN
AND
CONTROL DATA



NOTE: ALL BEARINGS TO BE ROTATED 0° 25' 28" NORTH TO EAST TO OBTAIN TRUE BEARING.

UTILITIES:
MOUNTAIN BELL
PUBLIC SERVICE COMPANY.

CURVE DATA
 $\Delta = 22^\circ 20' 40''$
 $D = 11^\circ 00'$
 $T = 103.35'$
 $L = 204.04'$
 $R = 520.87'$
 $e = .074$ (STD. M-203-SC)
 $S.S.D. > 300'$
 $M.D.S. = 40$ M.P.H.
 $TRAN. = 170'$



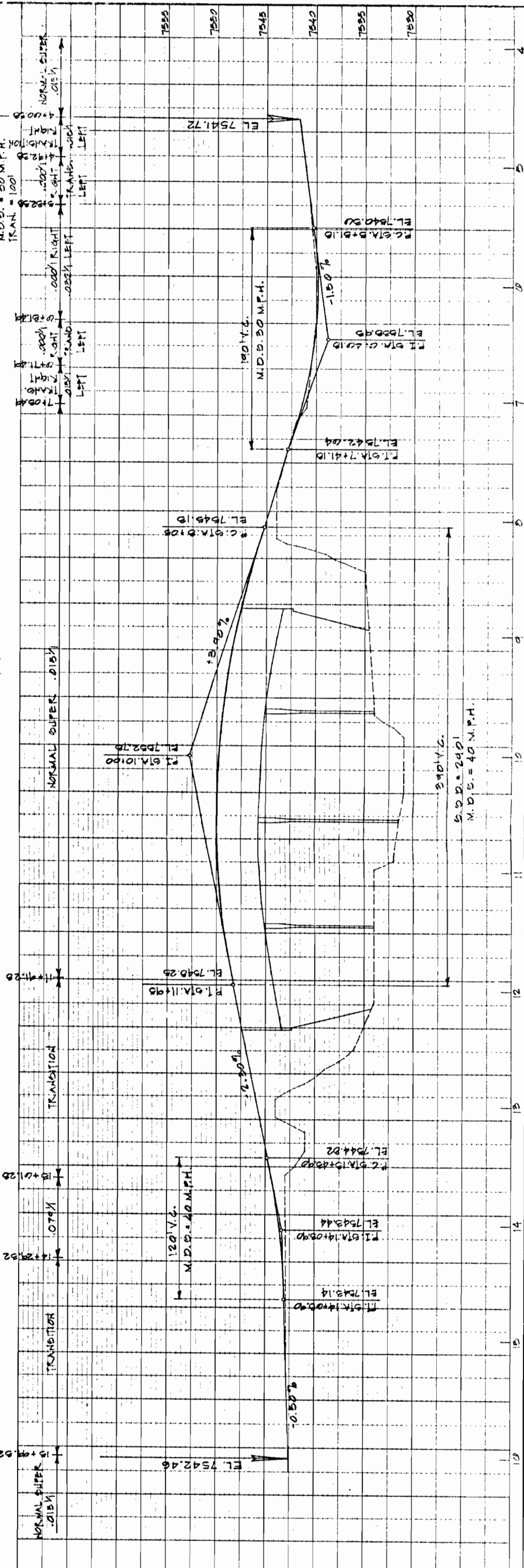
PLAN	NO. OF SHEETS	NO. OF REVISIONS
1	7	0

CURVE DATA
 $\Delta = 22^\circ 20' 40''$
 $D = 11^\circ 00'$
 $T = 103.35'$
 $L = 204.04'$
 $R = 520.87'$
 $e = .074$
 $S.S.D. > 300'$
 $M.D.S. = 40$ M.P.H.
 $TRAN. = 170'$

NOTE:
REFER TO AREA PLAN
FOR BENCH MARK LOCATIONS.

TYPICAL SECTIONS OVER EXISTING ASPHALT
 $\Delta =$ DIFFERENCE BETWEEN FINAL AND EXISTING GRADES

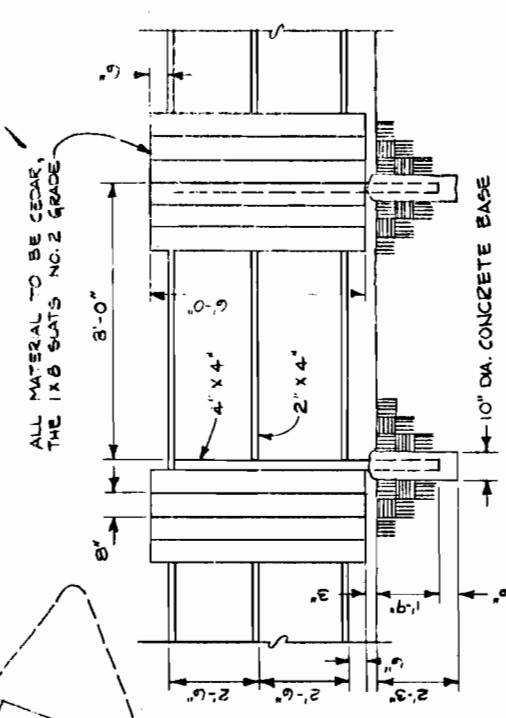
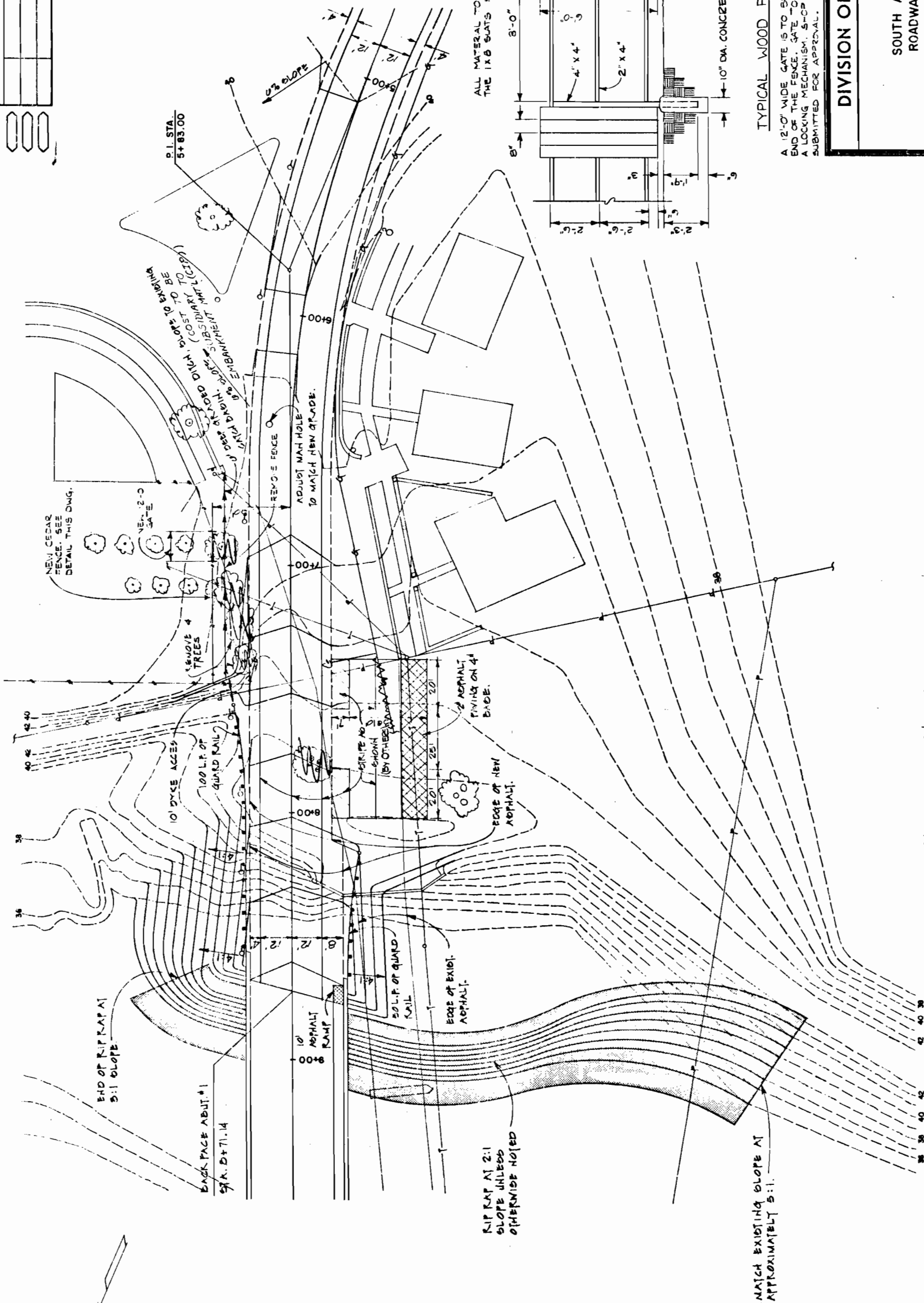
TYPICAL SECTION
(UNLESS OTHERWISE NOTED)
10'-0" STA 15+00 TO STA 16+00



PROFILE	NO. OF SHEETS	NO. OF REVISIONS
1	7	0

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	505-BRM 0030 (1)	8	
REVISIONS				

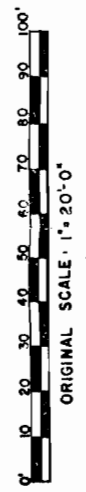
AS CONSTRUCTED	NO REVISIONS	REVISED 10-29-62	VOID
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TYPICAL WOOD FENCE DETAIL
A 12'-0" WIDE GATE IS TO BE INSTALLED AT THE SOUTH END OF THE FENCE. GATE TO HAVE A DOUBLE SWING & A LOCKING MECHANISM. S-C-P DRAWINGS TO BE SUBMITTED FOR APPROVAL.

DIVISION OF HIGHWAYS	
SOUTH APPROACH ROADWAY PLAN	
Designer E. R. W.	Structure Numbers
Detailer P. E. H.	
Revision Dates	
(Preliminary Stage Only)	

SOUTH APPROACH ROADWAY PLAN



DESIGNED BY	DATE	INITIAL
CHECKED BY		
QUANTITIES BY		
CHECKED BY		

FEDERAL ROAD REGION NO.
VIII

DIVISION
COLORADO

PROJ. NO.
SDS-2RM 0030(1)

SHEET NO.
9

TOTAL SHEETS

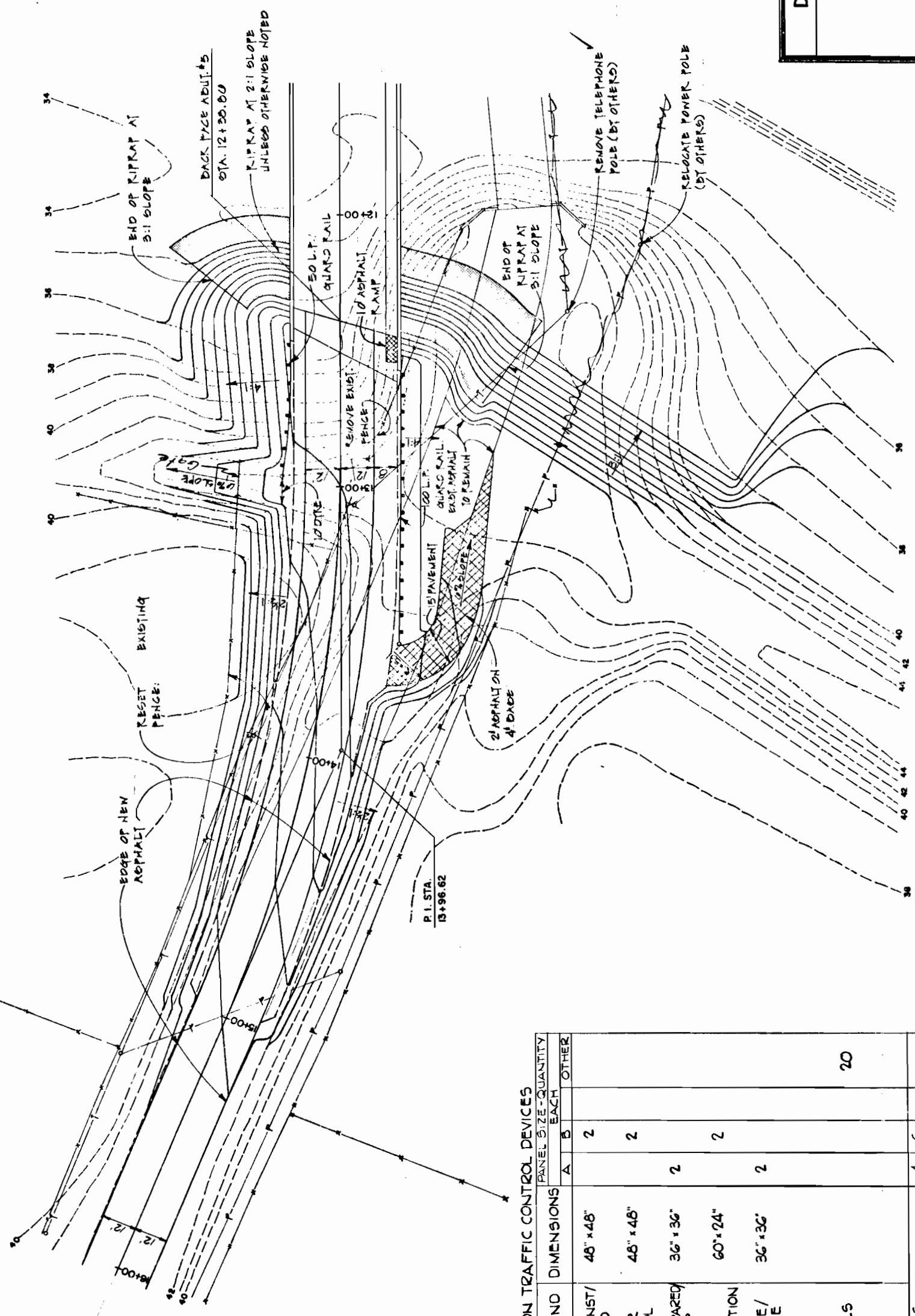
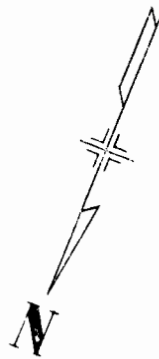
NO REVISIONS

AS CONSTRUCTED

REVISED 12-27-82

VOID

REVISIONS



CONSTRUCTION TRAFFIC CONTROL DEVICES

SIGN CODE	LEGEND	DIMENSIONS	PANEL SIZE - QUANTITY			
			A	B	EACH	OTHER
48W20-1	ROAD/CONST/ AHEAD	48" x 48"		2		
48W20-7a	FLAGGER SYMBOL	48" x 48"		2		
36W20-50	BE/PREPARED TO/STOP	36" x 36"		2		
60S20-2	END/ CONSTRUCTION	60" x 24"		2		
36W5-3	ONE/LANE/ BRIDGE	36" x 36"		2		
	VERTICAL PANELS					20
TOTALS			4	6		

NORTH APPROACH ROADWAY PLAN



DIVISION OF HIGHWAYS

NORTH APPROACH
ROADWAY PLAN

Designer E.R.W.

Detailer P.E.H.

Structure Number

Revision Dates (Preliminary Stage Only)

GENERAL NOTES

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

STRUCTURE EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH STANDARD M-208-AB.

EXPANSION JOINT MATERIAL SHALL MEET AASHTO SPECIFICATION M-213.

ALL STRUCTURAL STEEL NOT OTHERWISE NOTED SHALL BE AASHTO M-183 (ASTM A-36).

ALL AASHTO M-183 (ASTM A-36) STEEL NOT OTHERWISE NOTED SHALL BE PAINTED IN ACCORDANCE WITH SECTION 509 OF THE STANDARD SPECIFICATIONS. THE COLOR SHALL BE SAND BEIGE.

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

GRADE 60 REINFORCING STEEL IS REQUIRED FOR #5 BARS AND LARGER. GRADE 40 MAY BE USED FOR #4 BARS.

THE FOLLOWING TABLE GIVES THE MINIMUM LAP SPLICE LENGTH FOR REINFORCING BARS:

BAR SIZE	#4	#5	#6	#7	#8	#9	#10	#11
SPLICE LENGTH FOR CLASS A CONCRETE	1'-0"	1'-3"	1'-8"	2'-3"	3'-0"	3'-10"	4'-10"	5'-11"
SPLICE LENGTH FOR CLASS B & S CONCRETE	1'-0"	1'-3"	1'-6"	2'-0"	2'-7"	3'-4"	4'-2"	5'-1"

THE ABOVE SPLICE LENGTHS SHALL BE INCREASED BY 20 PERCENT FOR 3 BAR BUNDLES AND 33 PERCENT FOR 4 BAR BUNDLES.

APPLIED WIND LOADS AND EARTHQUAKE LOADS WERE NOT CONSIDERED IN ANALYZING THE STRUCTURE FOR STABILITY DURING THE CONSTRUCTION STAGES.

E.F. = EACH FACE
F.F. = FAN FACE
N.F. = NEAR FACE

DESIGN DATA

CURRENT AASHTO SPECIFICATIONS.

LIVE LOAD: AASHTO HS-20-44

DEAD LOAD: ASSUMES 46 LBS. PER SQ. FT. FOR BITUMINOUS PAVEMENT

REINFORCED CONCRETE:

CLASS A CONCRETE: $f'_c = 1,200$ psi, $n = 10$

CLASS D CONCRETE: $f'_c = 1,400$ psi, $n = 8$

REINFORCING STEEL: #4 BARS: $f_s = 20,000$ psi

#5 BARS AND LARGER: $f_s = 24,000$ psi

EXCEPT FOR TRANSVERSE DECK SLAB, $f_s = 20,000$ psi

STRUCTURAL STEEL: AASHTO M-183 (ASTM A-36) $f_s = 20,000$ psi

PRESTRESSED CONCRETE: $f'_s = 270,000$ psi

$f'_c = 5,000$ psi

9055 REFERENCE DRAWING NUMBER

SECTION OR DETAIL IDENTIFICATION

SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	SUPER - STRUCTURE	ABUT. 1	PIER 2	PIER 3	PIER 4	ABUT. 5	TOTAL
202	REMOVAL OF BRIDGE	EACH							1
206	STRUCTURE EXCAVATION	CU. YD.		76.5	45.5	45.5	45.5	71.0	284
206	STRUCTURE BACKFILL (CLASS 2)	CU. YD.		56.0	23.4	23.4	23.4	57.8	184
502	# STEEL PILING (HP10x42)	LIN. FT.		643	912	848	912	643	3,958
509	STRUCTURAL STEEL	LB.	513	280	278	266	270		1,607
509	STRUCTURAL STEEL (GALVANIZED)	LB.	17,907	488	153	283	489		19,467
513	DRAIN PIPE (6 INCH)	LIN. FT.	23						23
518	BRIDGE EXPANSION DEVICE (0 - 2 INCH)	LIN. FT.		34				34	68
601	CONCRETE CLASS A (BRIDGE)	CU. YD.		43.4	44.7	50.3	44.6	45.0	228
601	CONCRETE CLASS D (BRIDGE)	CU. YD.	490.3	1.8				1.9	494
602	REINFORCING STEEL	LB.	100,341	3,110	8,147	9,040	8,108	3,213	132,159
618	PRESTRESSED CONCRETE UNIT (BOX SECTION)(85'-90')	P.A.	10						10
618	PRESTRESSED CONCRETE UNIT (BOX SECTION)(90'-95')	E.A.	10						10
626	MOBILIZATION	L.S.							0.9

* W10x45 OR HPS 10x42 MAY BE USED IN LIEU OF THE HP 10x42.

BRIDGE DESCRIPTION

4-SPAN (89'-0", 93'-0", 93'-0", 89'-0") BRIDGE, CONCRETE SLAB ON PRESTRESSED BOX GIRDERS.

OVER THE RIO GRANDE RIVER

32'-0" ROADWAY CURB TO CURB, 74" SEW

1'-3" RAILS AND 4'-0" SIDEWALK.

TYPE 7 MODIFIED BRIDGE RAIL.

DIVISION OF HIGHWAYS

GENERAL INFORMATION

SUMMARY OF QUANTITIES

Station 8+71.14 TO
Station 12+38.86

Near ALAMOS Sec 3 T37N R10E

Designer E.R.W.

Detailer P.E.H.

Drawing Number B-1

of 19 Drawings

Approved

DATE

DESIGN ENGINEER

Revision Date

Final

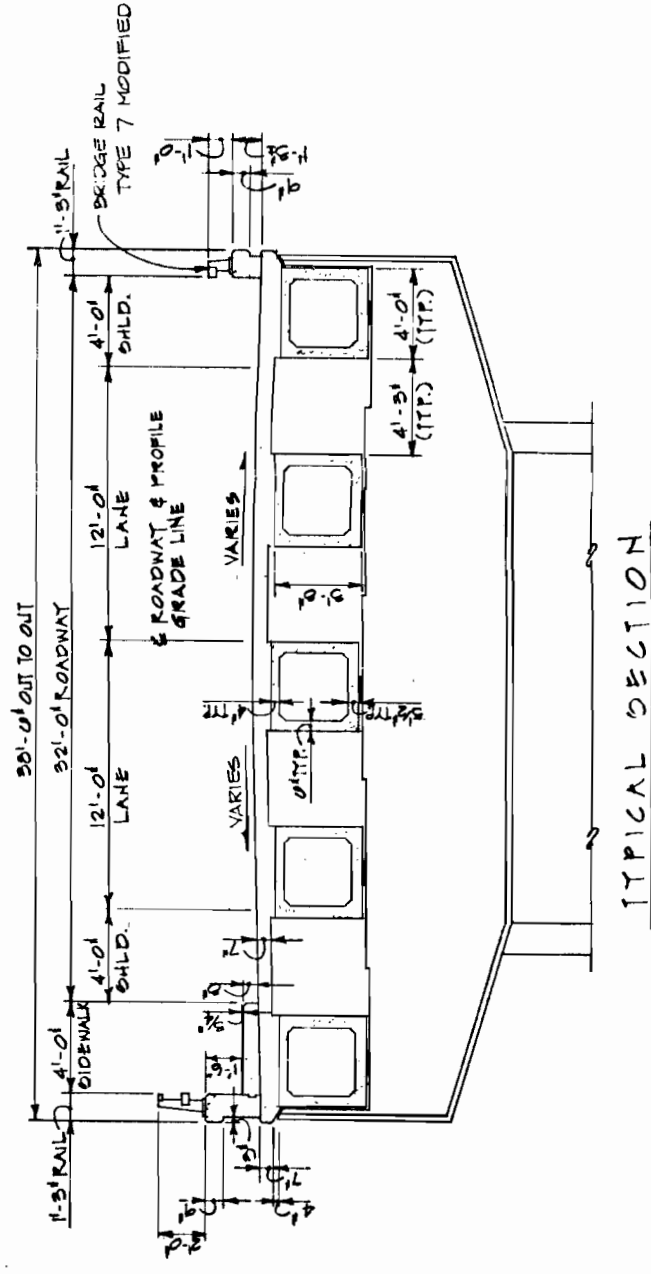
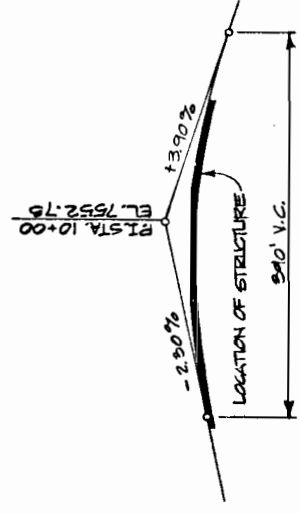
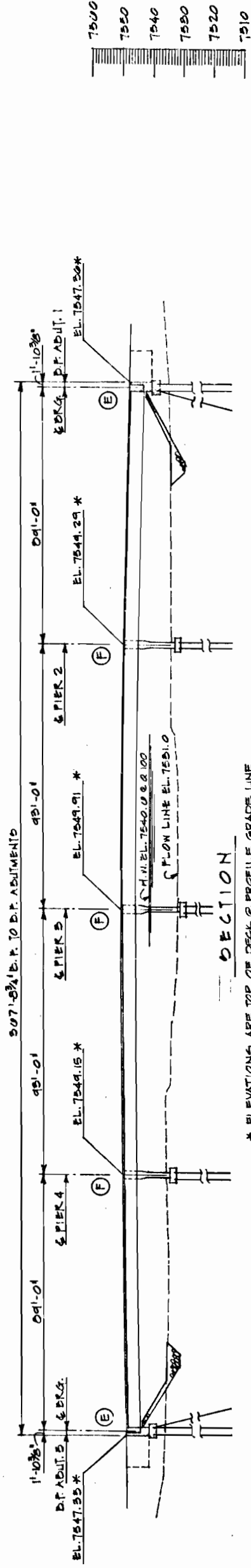
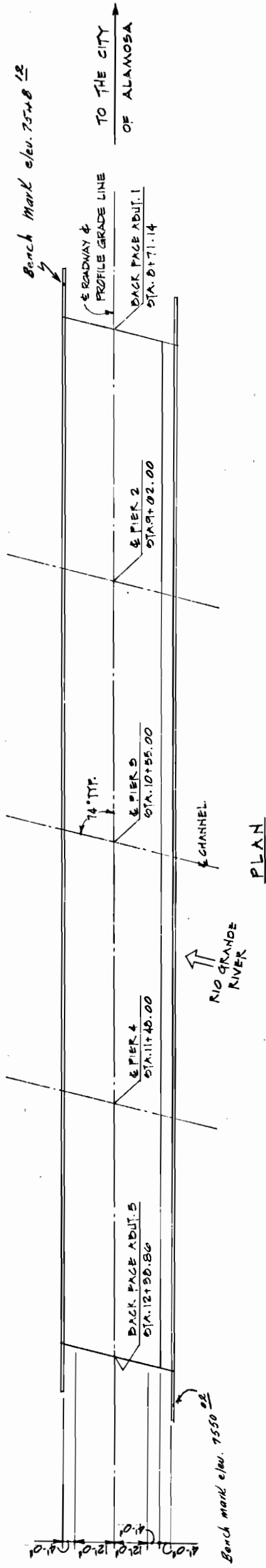
224 81

497 19

141,804

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLOMADO	SOS-BRM 0030(1)	11	

REVISIONS	



LIVE LOADING: HS 20-44

DIVISION OF HIGHWAYS

GENERAL LAYOUT

Designer	E. R. W.	Structure Numbers
Detailer	P. E. H.	
Drawing Number B-2		of 19 Drawings

DESIGNED BY	INITIAL	DATE	CHECKED BY	QUANTITIES BY	CHECKED BY

AS CONSTRUCTED

NO REVISIONS 10-15-82

REVISION

VOID

FED. ROAD
REG. NO.

DIVISION

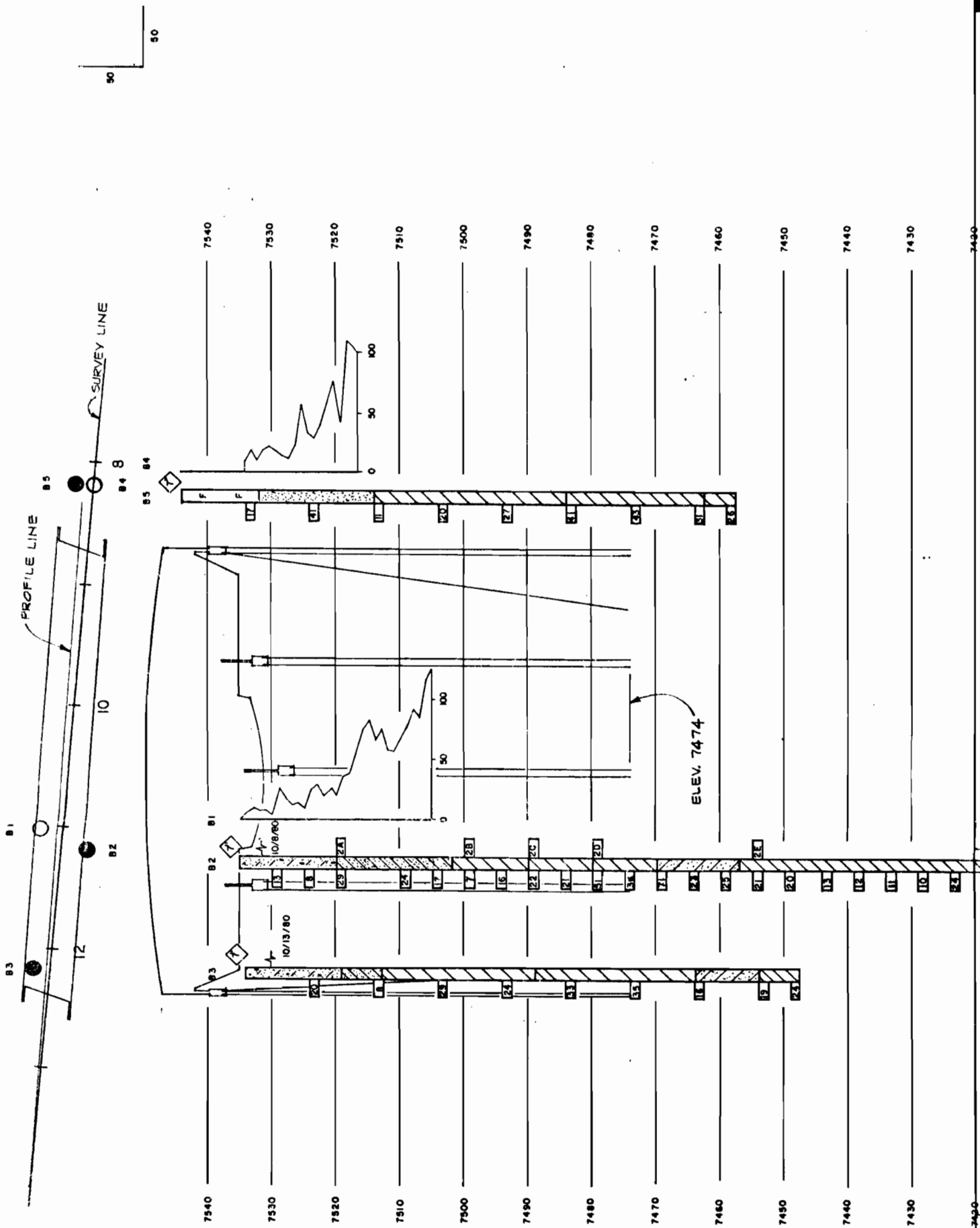
PROJECT NO.

SHEET
NO.

TOTAL
SHEETS

100-894(10300)

12

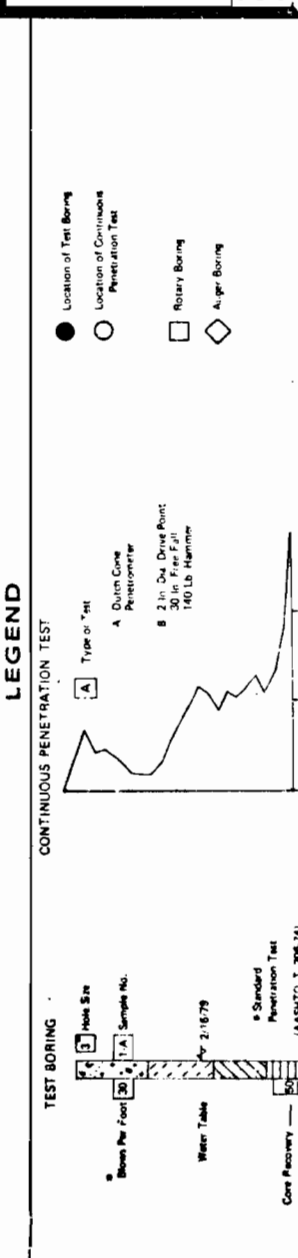


DIVISION OF HIGHWAYS

ENGINEERING GEOLOGY

RIO GRAND RIVER
AT ALAMOSA

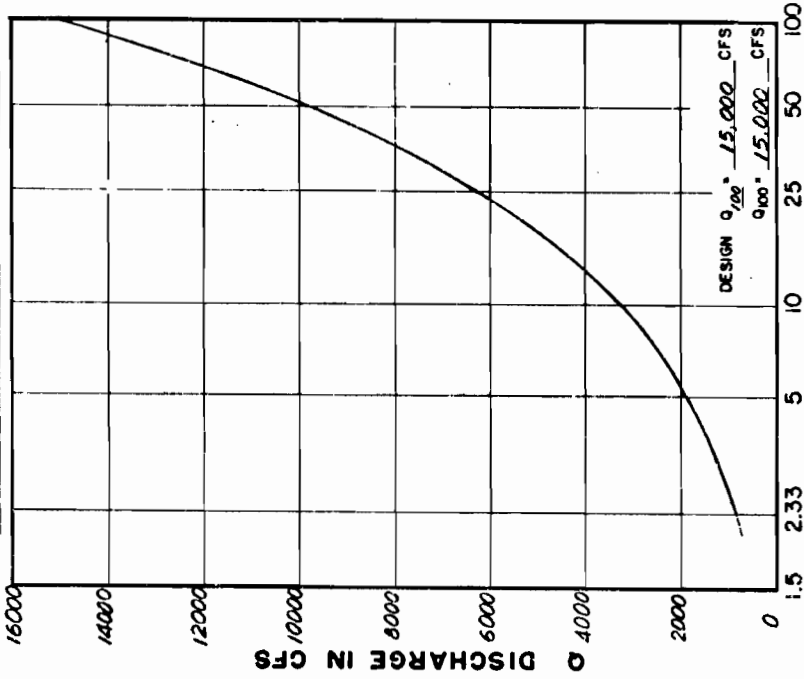
Geologist L.S.B.
Drawn by P.M.
Checked by E.P.B.
Date 12 NOV 80



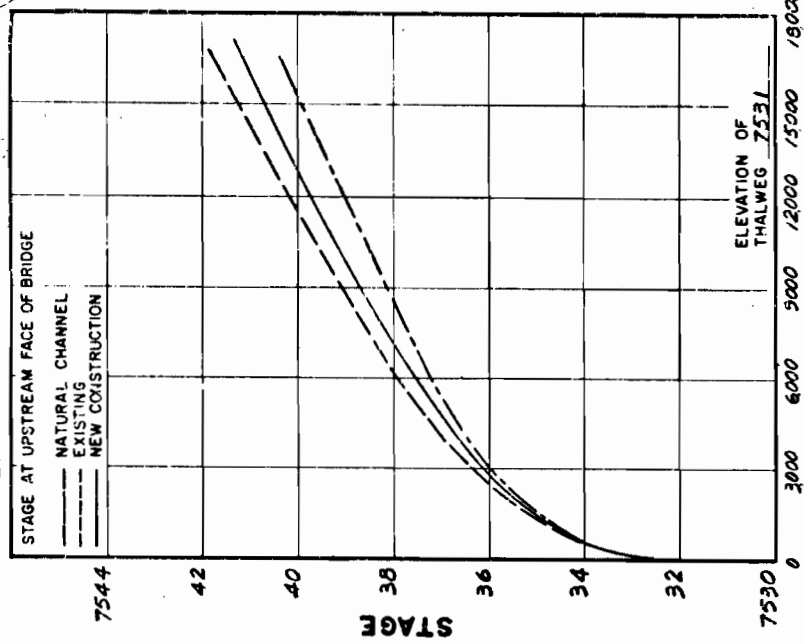
SUMMARY OF TEST RESULTS															TYPE OF MATERIAL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Sample No.	Depth	Classification	Grading Analysis					Atterberg Limits					Unconfined Strength T.B.F.	Tensile Strength		D ₅₀ of Sample	Liquid Limit	Plastic Limit	Shrinkage Limit	Flow Value	Penetration																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
			Coarse Sand	Fine Sand	Silt	Clay	Gravel	LL	PL	SL	TS	TS		TS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
2A	15.2-16.7	Sandy Clay	0	4	53	43	33	23	10	24.4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

BRIDGE HYDRAULIC INFORMATION

DISCHARGE - FREQUENCY



STAGE - DISCHARGE



RECURRENT INTERVAL IN YEARS

Drainage Area 1,710 Sq. Mi.

CHANNEL DESCRIPTION

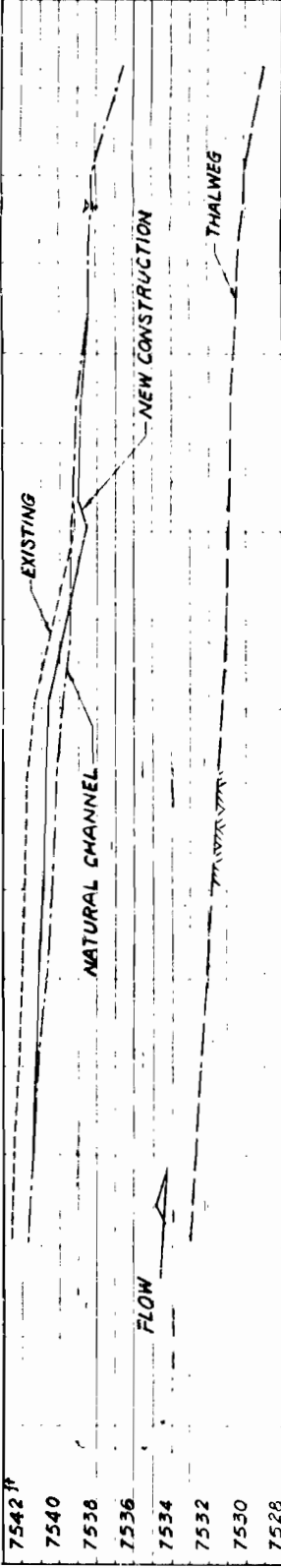
- Bottom Material — Cohesive ☐ Non Cohesive ☒
Bottom Material Size — Clay ☐ Silt ☐ Sand ☒ Gravel ☒
Stream Form — Straight ☐ Meandering ☐ Braided ☒
Mannings "n" for Design — Channel 0.027 Overbank 0.042
Debris — Brush ☐ Trees/Logs ☐ Ice ☐ Other ☐

COMPARISON OF HYDRAULICS

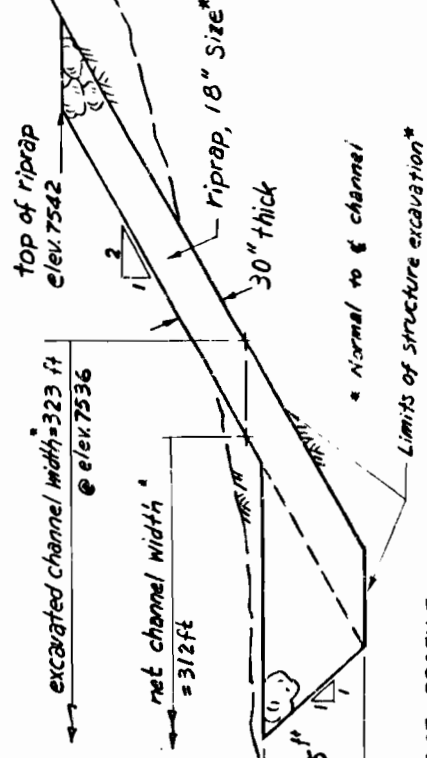
	Velocity - fps	Froude No.	Max. Backwater
Natural Channel	average		
Existing	7.3	1.16	0.58
Proposed	9.6	1.45	0.75
	10.5	1.42	0.83

AT PROPOSED BRIDGE LOCATION DURING DESIGN DISCHARGE

WATER SURFACE PROFILE



RIPRAP DETAIL



*Quantity Required: Riprap, 1444 Cu. Yd.
Structure Excavation, 656 Cu. Yd.
792

DIVISION OF HIGHWAYS

BRIDGE HYDRAULIC INFORMATION

Across <u>RIO GRANDE</u>	Approved By <u>[Signature]</u>	Date: <u>11-2-51</u>
Designer <u>S. R. [Signature]</u>	Structure Numbers <u>[Blank]</u>	
Detailer <u>S. R. [Signature]</u>	Drawing Number <u>B-4</u>	of <u>19</u> Drawings

FEDERAL ROAD DISTRICT NO. <u>VIII</u>	DIVISION <u>COLORADO</u>	PROJ. NO. <u>505-BRM-0030(1)</u>	SHEET NO. <u>13</u>	TOTAL SHEETS <u>13</u>
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REVISIONS

NO.	DESCRIPTION	DATE

AS CONSTRUCTED

NO REVISIONS

REVISED 10-29-52 V.C.D.

CL GIRDER 1		CL GIRDER 2		CL GIRDER 3		CL GIRDER 4		CL GIRDER 5		CL GIRDER 6		CL GIRDER 7		CL GIRDER 8		CL GIRDER 9		CL GIRDER 10		CL GIRDER 11		CL GIRDER 12		CL GIRDER 13		CL GIRDER 14		CL GIRDER 15		CL GIRDER 16		CL GIRDER 17		CL GIRDER 18		CL GIRDER 19		CL GIRDER 20		CL GIRDER 21		CL GIRDER 22		CL GIRDER 23		CL GIRDER 24		CL GIRDER 25		CL GIRDER 26		CL GIRDER 27		CL GIRDER 28		CL GIRDER 29		CL GIRDER 30		CL GIRDER 31		CL GIRDER 32		CL GIRDER 33		CL GIRDER 34		CL GIRDER 35		CL GIRDER 36		CL GIRDER 37		CL GIRDER 38		CL GIRDER 39		CL GIRDER 40		CL GIRDER 41		CL GIRDER 42		CL GIRDER 43		CL GIRDER 44		CL GIRDER 45		CL GIRDER 46		CL GIRDER 47		CL GIRDER 48		CL GIRDER 49		CL GIRDER 50		CL GIRDER 51		CL GIRDER 52		CL GIRDER 53		CL GIRDER 54		CL GIRDER 55		CL GIRDER 56		CL GIRDER 57		CL GIRDER 58		CL GIRDER 59		CL GIRDER 60		CL GIRDER 61		CL GIRDER 62		CL GIRDER 63		CL GIRDER 64		CL GIRDER 65		CL GIRDER 66		CL GIRDER 67		CL GIRDER 68		CL GIRDER 69		CL GIRDER 70		CL GIRDER 71		CL GIRDER 72		CL GIRDER 73		CL GIRDER 74		CL GIRDER 75		CL GIRDER 76		CL GIRDER 77		CL GIRDER 78		CL GIRDER 79		CL GIRDER 80		CL GIRDER 81		CL GIRDER 82		CL GIRDER 83		CL GIRDER 84		CL GIRDER 85		CL GIRDER 86		CL GIRDER 87		CL GIRDER 88		CL GIRDER 89		CL GIRDER 90		CL GIRDER 91		CL GIRDER 92		CL GIRDER 93		CL GIRDER 94		CL GIRDER 95		CL GIRDER 96		CL GIRDER 97		CL GIRDER 98		CL GIRDER 99		CL GIRDER 100		CL GIRDER 101		CL GIRDER 102		CL GIRDER 103		CL GIRDER 104		CL GIRDER 105		CL GIRDER 106		CL GIRDER 107		CL GIRDER 108		CL GIRDER 109		CL GIRDER 110		CL GIRDER 111		CL GIRDER 112		CL GIRDER 113		CL GIRDER 114		CL GIRDER 115		CL GIRDER 116		CL GIRDER 117		CL GIRDER 118		CL GIRDER 119		CL GIRDER 120		CL GIRDER 121		CL GIRDER 122		CL GIRDER 123		CL GIRDER 124		CL GIRDER 125		CL GIRDER 126		CL GIRDER 127		CL GIRDER 128		CL GIRDER 129		CL GIRDER 130		CL GIRDER 131		CL GIRDER 132		CL GIRDER 133		CL GIRDER 134		CL GIRDER 135		CL GIRDER 136		CL GIRDER 137		CL GIRDER 138		CL GIRDER 139	
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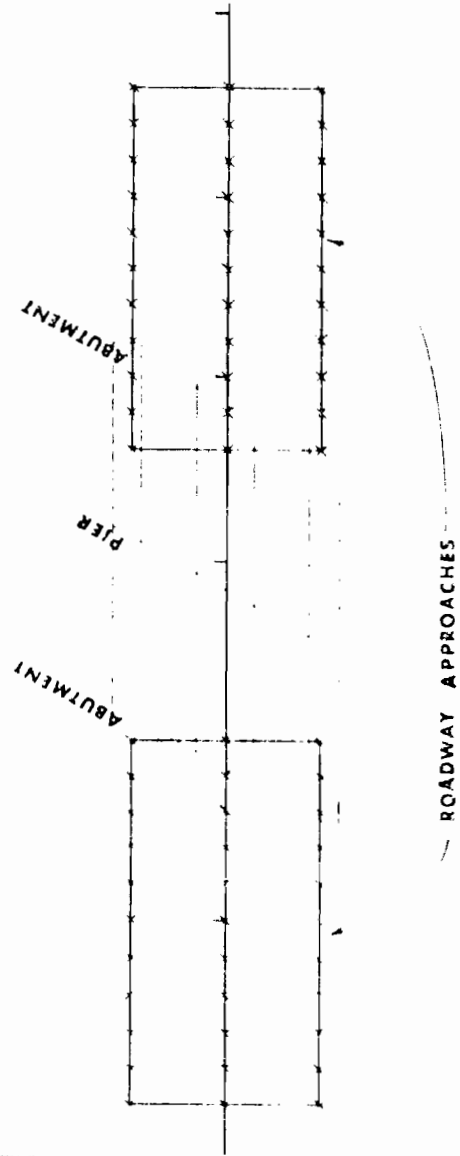
DIVISION OF HIGHWAYS

BRIDGE DECK ELEVATIONS

ROADWAY APPROACHES

ELEVATIONS ARE AT FINISHED GRADE

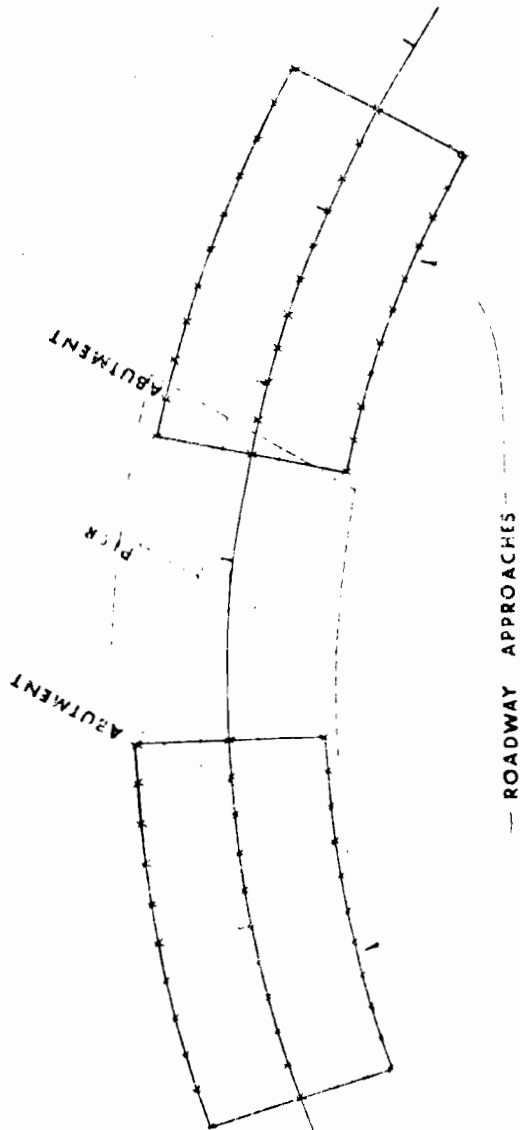
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4+00	7547.2141	7547.2141
6+00	7547.2142	7547.2142
8+00	7547.2143	7547.2143
10+00	7547.2144	7547.2144
12+00	7547.2145	7547.2145
14+00	7547.2146	7547.2146
16+00	7547.2147	7547.2147
18+00	7547.2148	7547.2148
20+00	7547.2149	7547.2149
22+00	7547.2150	7547.2150
24+00	7547.2151	7547.2151
26+00	7547.2152	7547.2152
28+00	7547.2153	7547.2153
30+00	7547.2154	7547.2154
32+00	7547.2155	7547.2155
34+00	7547.2156	7547.2156
36+00	7547.2157	7547.2157
38+00	7547.2158	7547.2158
40+00	7547.2159	7547.2159
42+00	7547.2160	7547.2160
44+00	7547.2161	7547.2161
46+00	7547.2162	7547.2162
48+00	7547.2163	7547.2163
50+00	7547.2164	7547.2164
52+00	7547.2165	7547.2165
54+00	7547.2166	7547.2166
56+00	7547.2167	7547.2167
58+00	7547.2168	7547.2168
60+00	7547.2169	7547.2169
62+00	7547.2170	7547.2170
64+00	7547.2171	7547.2171
66+00	7547.2172	7547.2172
68+00	7547.2173	7547.2173
70+00	7547.2174	7547.2174
72+00	7547.2175	7547.2175
74+00	7547.2176	7547.2176
76+00	7547.2177	7547.2177
78+00	7547.2178	7547.2178
80+00	7547.2179	7547.2179
82+00	7547.2180	7547.2180
84+00	7547.2181	7547.2181
86+00	7547.2182	7547.2182
88+00	7547.2183	7547.2183
90+00	7547.2184	7547.2184
92+00	7547.2185	7547.2185
94+00	7547.2186	7547.2186
96+00	7547.2187	7547.2187
98+00	7547.2188	7547.2188
100+00	7547.2189	7547.2189



* TANGENT ALIGNMENT

* THESE DRAWINGS ARE SCHEMATICS ONLY AND DO NOT NECESSARILY REFLECT THE ACTUAL BRIDGE LAYOUT.

STATION	OFFSET	16+0000
12+00	7547.2141	7547.2141
14+00	7547.2142	7547.2142
16+00	7547.2143	7547.2143
18+00	7547.2144	7547.2144
20+00	7547.2145	7547.2145
22+00	7547.2146	7547.2146
24+00	7547.2147	7547.2147
26+00	7547.2148	7547.2148
28+00	7547.2149	7547.2149
30+00	7547.2150	7547.2150
32+00	7547.2151	7547.2151
34+00	7547.2152	7547.2152
36+00	7547.2153	7547.2153
38+00	7547.2154	7547.2154
40+00	7547.2155	7547.2155
42+00	7547.2156	7547.2156
44+00	7547.2157	7547.2157
46+00	7547.2158	7547.2158
48+00	7547.2159	7547.2159
50+00	7547.2160	7547.2160
52+00	7547.2161	7547.2161
54+00	7547.2162	7547.2162
56+00	7547.2163	7547.2163
58+00	7547.2164	7547.2164
60+00	7547.2165	7547.2165
62+00	7547.2166	7547.2166
64+00	7547.2167	7547.2167
66+00	7547.2168	7547.2168
68+00	7547.2169	7547.2169
70+00	7547.2170	7547.2170
72+00	7547.2171	7547.2171
74+00	7547.2172	7547.2172
76+00	7547.2173	7547.2173
78+00	7547.2174	7547.2174
80+00	7547.2175	7547.2175
82+00	7547.2176	7547.2176
84+00	7547.2177	7547.2177
86+00	7547.2178	7547.2178
88+00	7547.2179	7547.2179
90+00	7547.2180	7547.2180
92+00	7547.2181	7547.2181
94+00	7547.2182	7547.2182
96+00	7547.2183	7547.2183
98+00	7547.2184	7547.2184
100+00	7547.2185	7547.2185

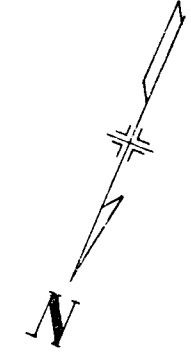


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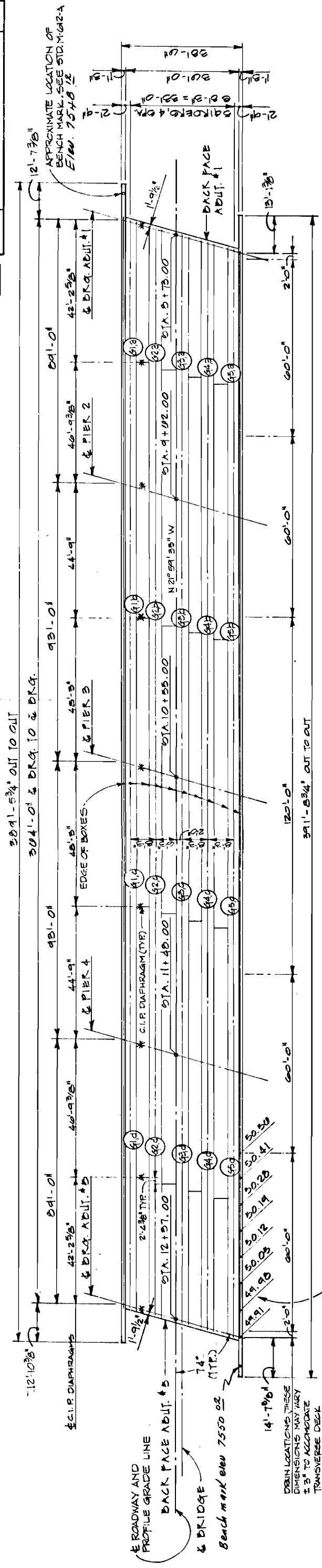
DIVISION OF HIGHWAYS

ROADWAY APPROACHES

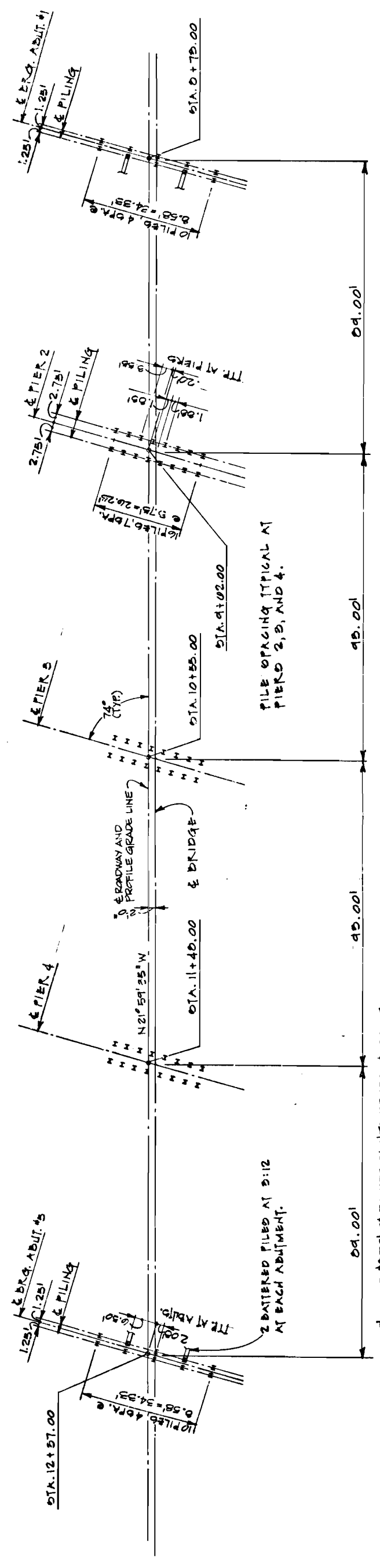
SSS-8RM 0030(1) 10



FEDERAL ROAD DISTRICT NO.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	003-BRM 0030(1)	101	
DIVISION	COLORADO		
REVISIONS			
NO REVISIONS			
REVISED 12-29-82			
VOID			

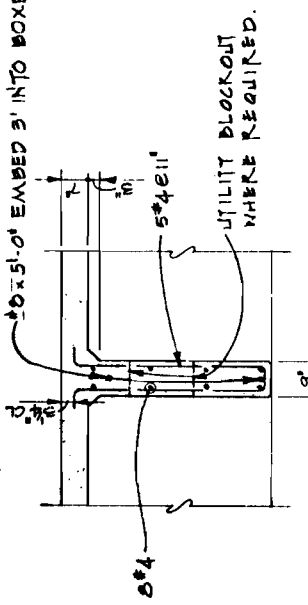


CONSTRUCTION LAYOUT
FOR DRAIN DETAIL SEE DWG. B-15
* UTILITY BLOCKOUT



PILING LAYOUT

NOTE:
ALL PILING SHALL BE FRICITION
HP 10 x 42 WITH A MAXIMUM PILE LOAD
OF 55,000. ESTIMATED TIE ELEV. = 7474



TYPICAL CAST IN PLACE DIAPHRAGM SECTION

DIVISION OF HIGHWAYS

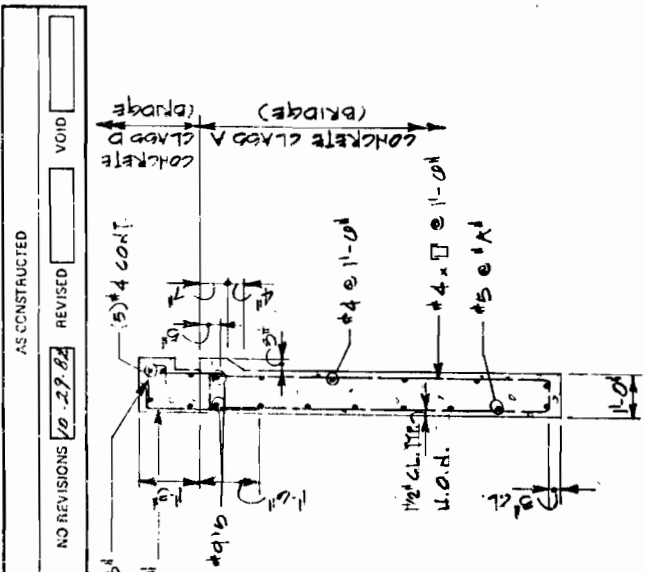
CONSTRUCTION AND PILING LAYOUTS

Designer E. R. W.
Detailer P. E. H.
Drawing Number B-10 of 19 Drawings

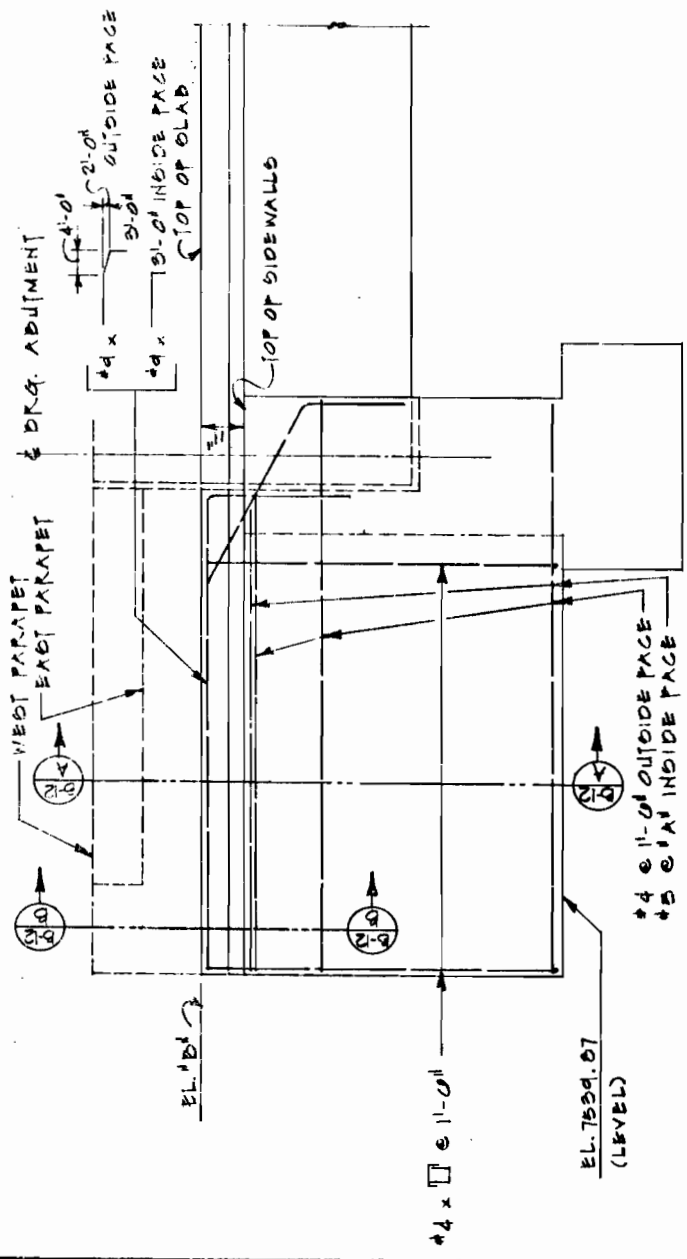
DESIGNED BY	INITIAL	DATE	CHECKED BY	QUANTITIES BY	CHECKED BY
DETAILED BY					
CHECKED BY					

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
XIII	COLORADO	SOS-BRM 0030(1)	21	

REVISIONS	



LOCATION	DIM. 1A'	ELEV. 1B'
ABUT. #1 S.E. WINGWALL 11'-0"	7540.03	
ABUT. #1 S.W. WINGWALL 9'	7540.09	
ABUT. #5 N.E. WINGWALL 11'-0"	7540.03	
ABUT. #5 N.W. WINGWALL 9'	7547.71	

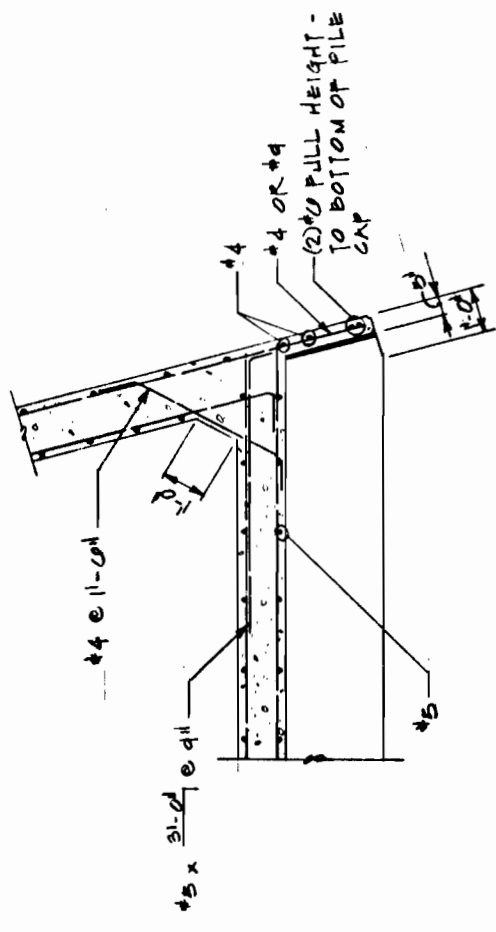
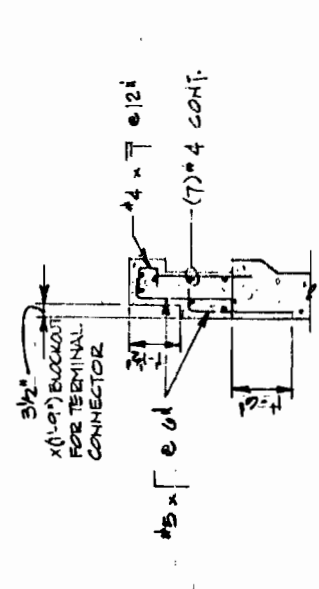


DESIGNED BY	INITIAL	DATE
CHECKED BY		
QUANTITIES BY		
CHECKED BY		

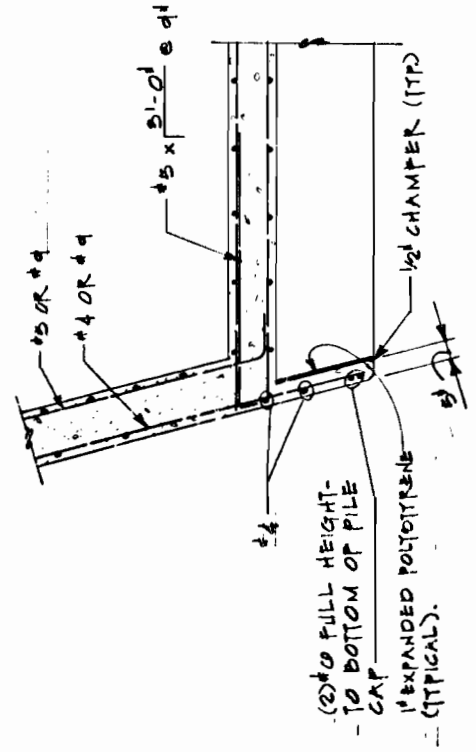
ELEVATION OF OUTSIDE FACE

SECTION EAST PARAPET

SECTION WEST PARAPET



CORNER DETAIL



CORNER DETAIL

DIVISION OF HIGHWAYS	
WINGWALL DETAILS	
Designer E. R. W.	Structure Numbers
Detailer P. E. H.	Drawings
Drawing Number B-12	of 19

AS CONSTRUCTED

NO REVISIONS

REVISED 10-27-93

VOID

FEDERAL ROAD REGION NO.

XIII

DIVISION

COLORADO

PROJECT NO.

505-BRM 0030(1)

SHEET NO.

22

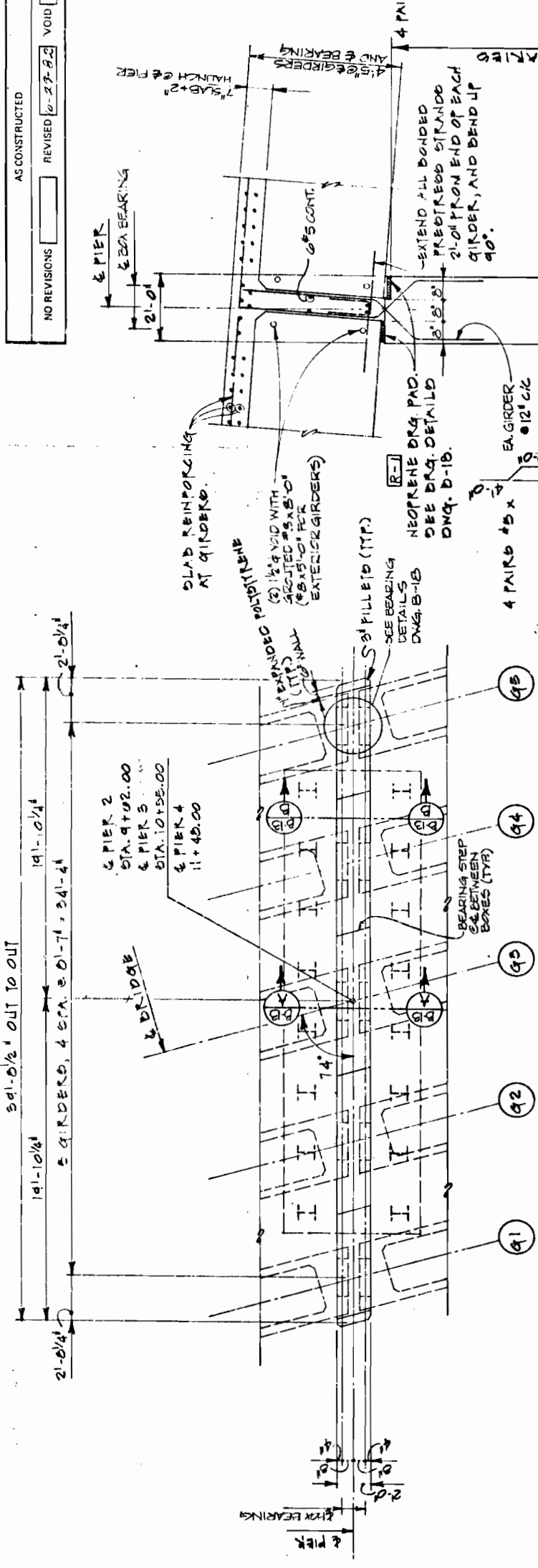
TOTAL SHEETS

REVISIONS

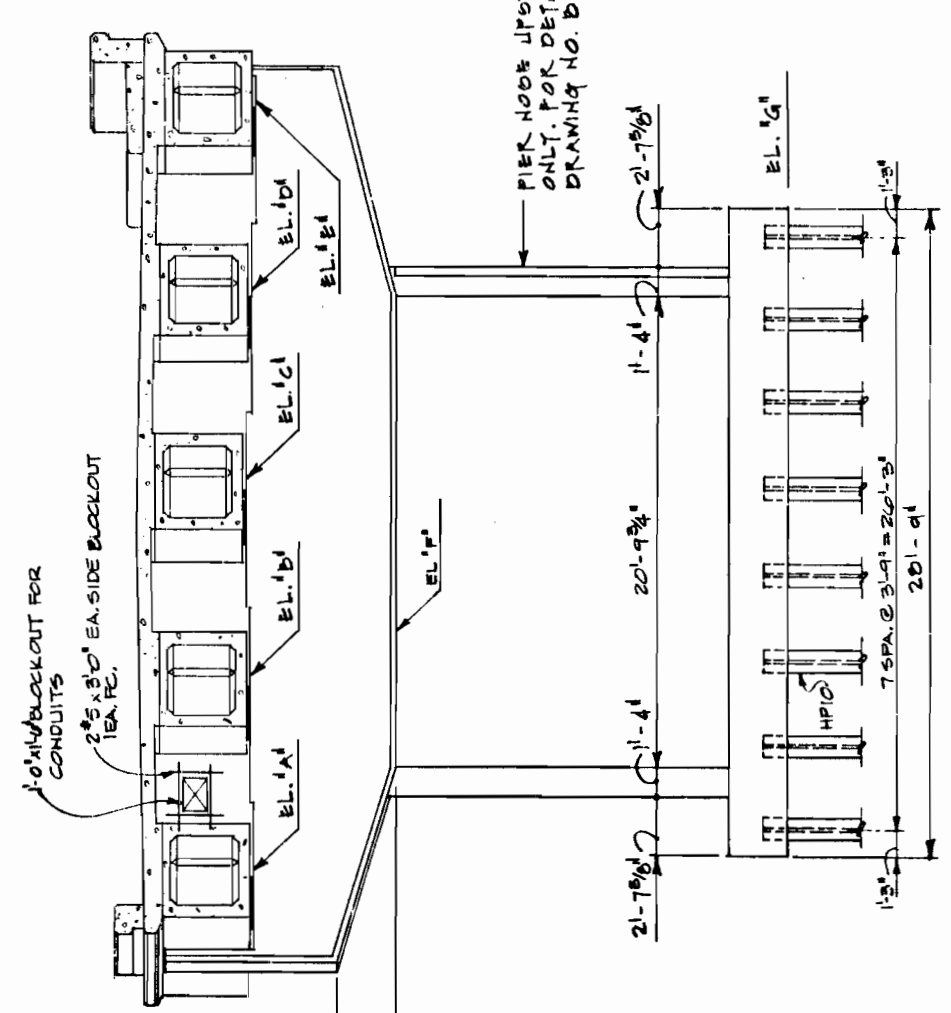
3-22-82

NOTE

GWO

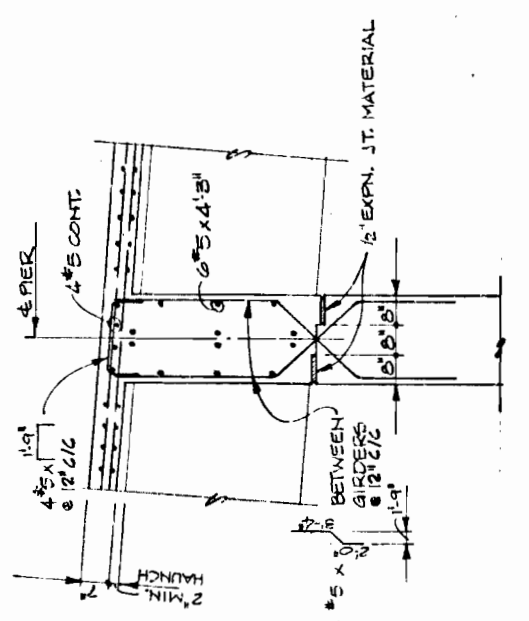


PLAN



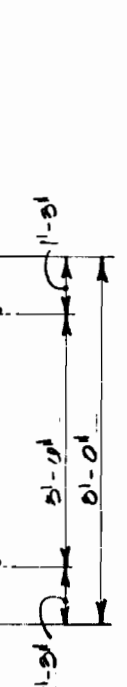
ELEVATION

SECTION
B
BETWEEN GIRDERS



PIER ELEVATIONS (-7500)			
	PIER #2	PIER #3	PIER #4
EL. 101'-NORTH	44.50	45.25	44.40
EL. 101'-SOUTH	44.49	45.23	44.39
EL. 101'-NORTH	44.72	45.50	44.57
EL. 101'-SOUTH	44.05	45.00	44.04
EL. 101'-NORTH	44.02	45.42	44.59
EL. 101'-SOUTH	44.75	45.42	44.00
EL. 101'-NORTH	44.75	45.29	44.45
EL. 101'-SOUTH	44.00	45.29	44.60
EL. 101'-NORTH	44.05	45.10	44.27
EL. 101'-SOUTH	44.57	45.10	44.54
EL. 101'-NORTH	39.49	39.16	39.27
EL. 101'-SOUTH	39.50	26.50	30.50
DN. 101'	5.49 FT	10.16 FT	5.27 FT

SECTION
A
AT GIRDERS



DIVISION OF HIGHWAYS

PIER DETAILS

NOTED:
FOR ADDITIONAL REINFORCING DETAILS SEE
DRAWING NO. B-14.
FOR BEARING DETAILS SEE
DRAWING NO. B-10.

Designer E. R. W.

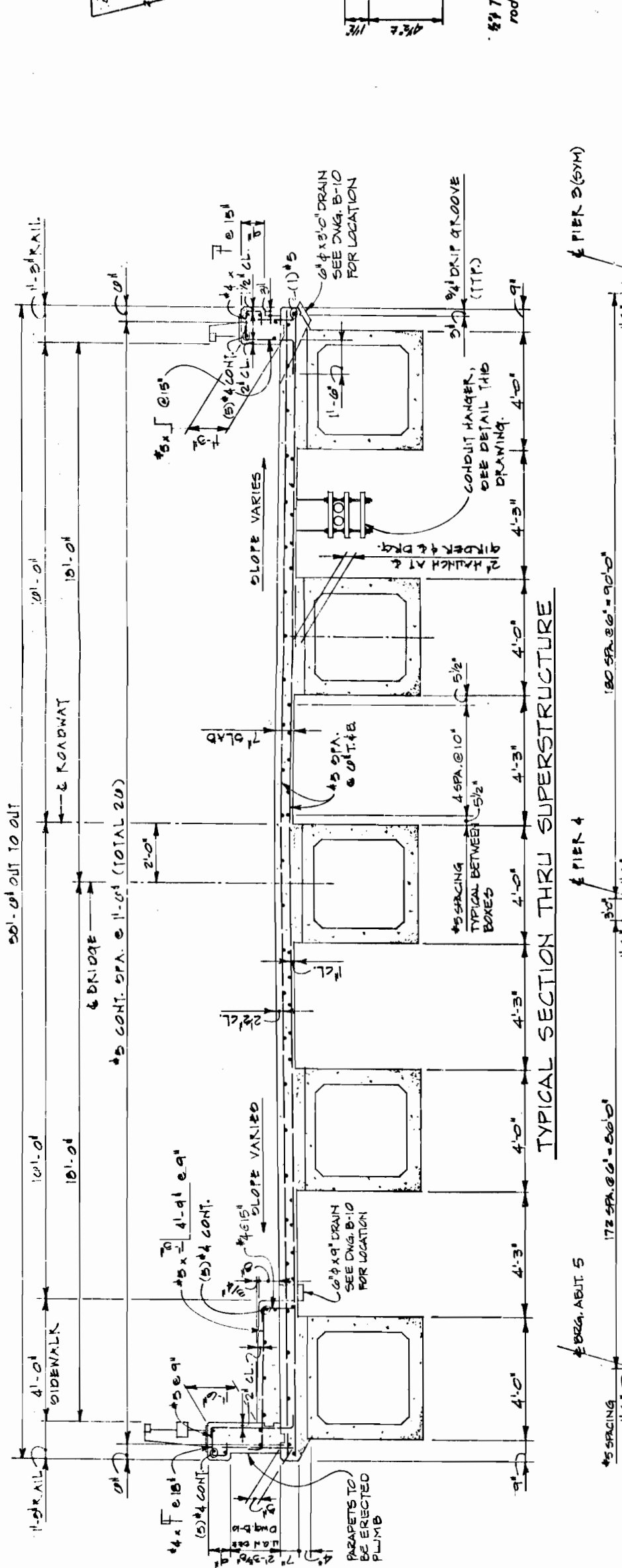
Detailer P. E. H.

Drawing Number B-13

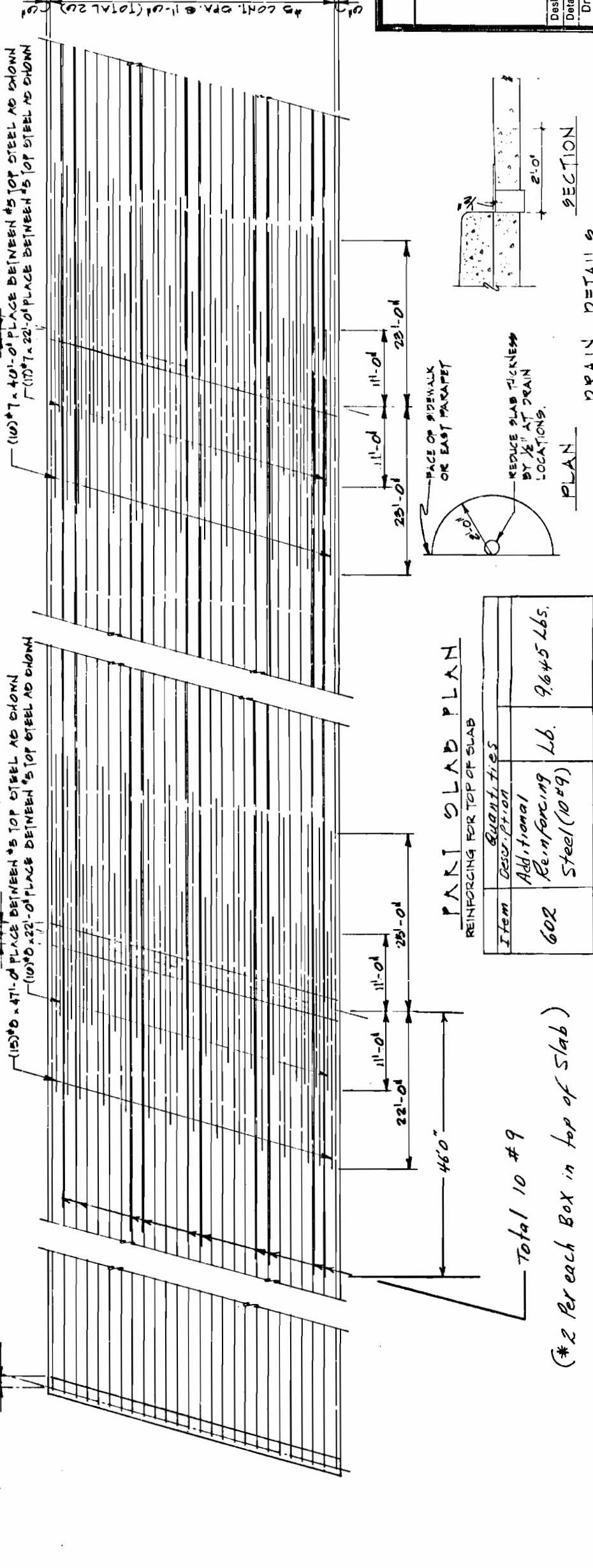
of 19

Drawings

REVISIONS	



CONDUIT HANGER ASSEMBLY DETAIL
Conc. inserts and 1/2" threaded rods shall each be capable of supporting 4000 Lbs.
For number of conduits required see "Superstructure Details."
Expansion joints are required in all conduit runs at each end if under 100'. If over 100' place at convenient locations approximately 100' apart.
Allow for expansion as follows: for each 20° of temperature change:
IP 3/4" per 100'
AL 1/2" per 100'
ALL MATERIAL TO BE SUPPLIED BY MOUNTAIN BELL. CONTRACTOR TO INSTALL INSERTS AND HANGER ASSEMBLIES.



PART SLAB PLAN
REINFORCING FOR TOP OF SLAB

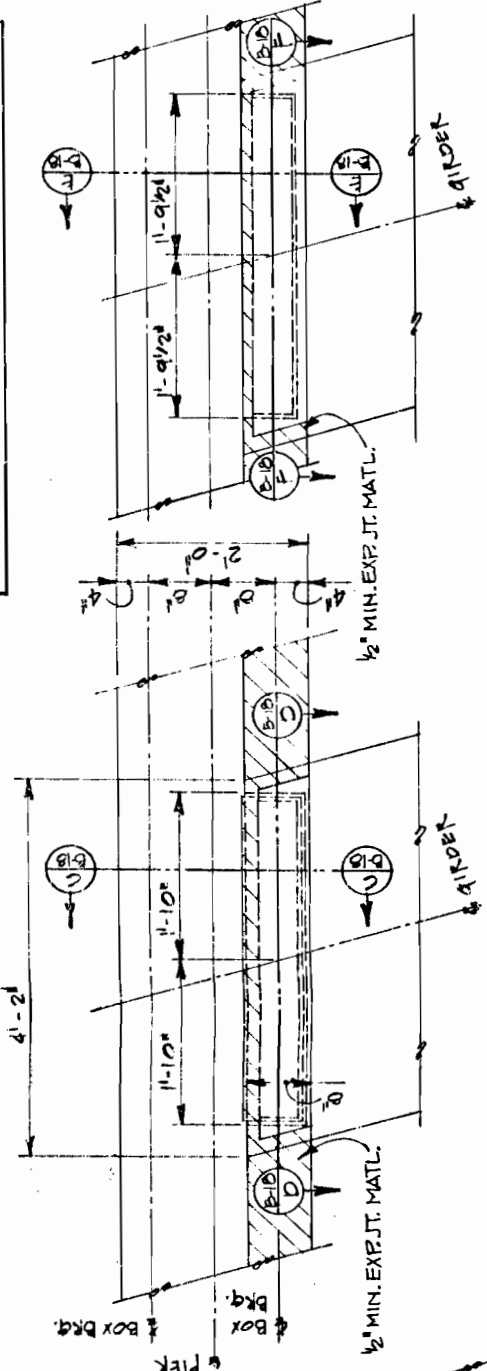
Item	Description	Quantity
602	Additional Reinforcing Steel (10#9)	Lb. 9,645 Lbs.

Total 10 #9
(*2 Per each Box in top of Slab)

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
XIII	COLORADO	SOS-ERM 003001	27	

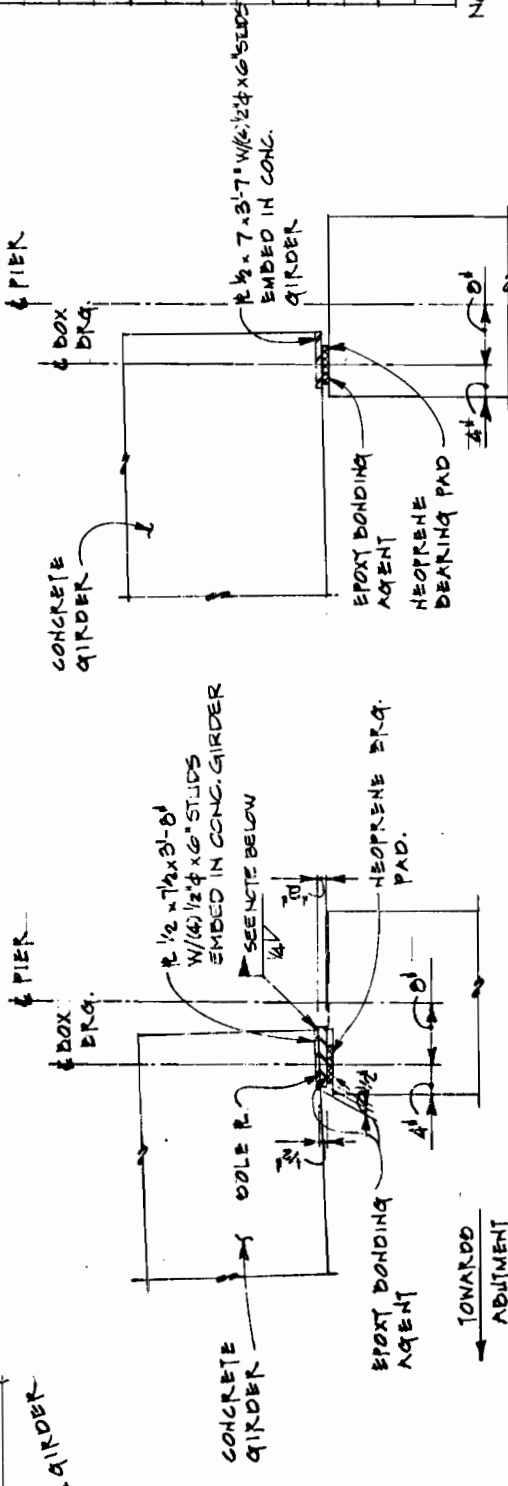
REVISIONS	
3-22-82	BEARING PLATE SIZE
	GWC

AS CONSTRUCTED	NO REVISIONS	REVISED	VOID
	10-27-82		



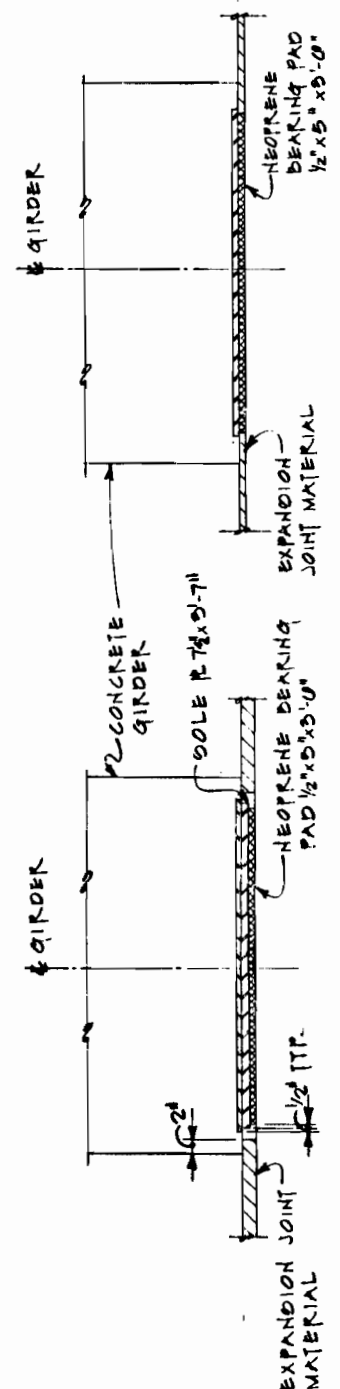
PLAN

PLAN



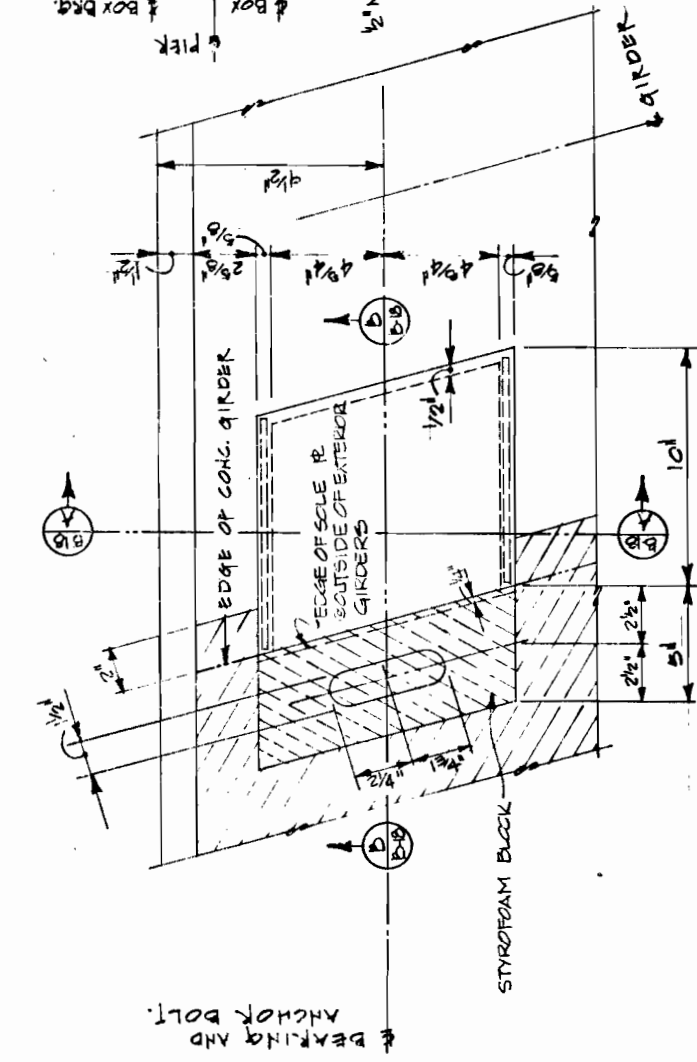
SECTION C

SECTION E

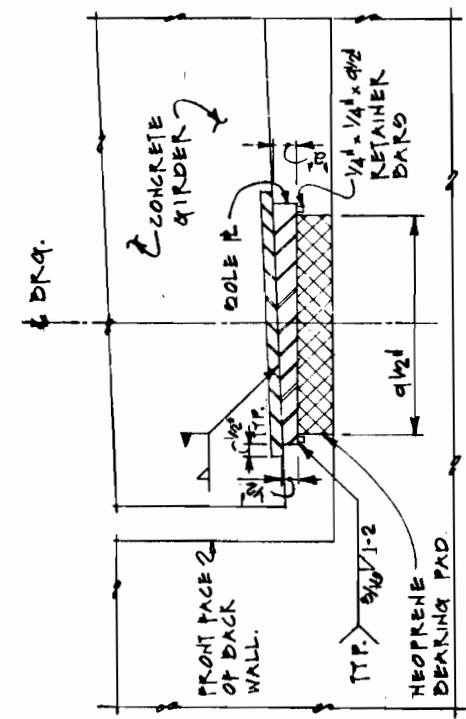


SECTION D

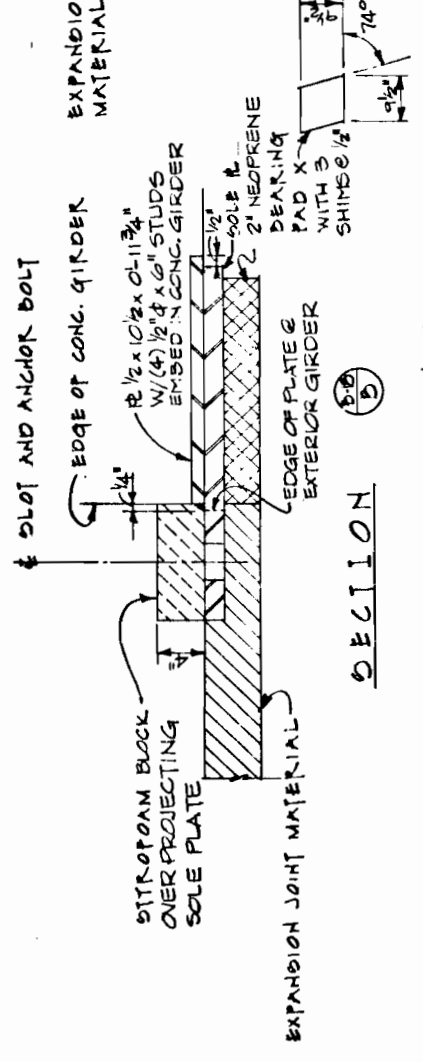
SECTION F



PLAN



SECTION A



SECTION B

BEARING TYPE 'D'

BEARING TYPE 'C'

AT SOUTH SIDE PIER 2 AND NORTH SIDE PIER 4
NOTE: PRECAST BOXES FOR SPANS 1 AND 4 MUST BE PLACED BEFORE SPANS 2 AND 3 TO ACCOMMODATE FIELD WELD ON SOLE PLATE.

AT NORTH SIDE PIER 2, BOTH SIDED PIER 3 AND SOUTH SIDE PIER 4

DIVISION OF HIGHWAYS

BEARING DETAILS

Designer E. R. W.	Structure Numbers
Detailer P. E. H.	
Drawing Number B-13	of 13 Drawings

