TITLE SHEET

FEDERAL ROAD REGION NO	DIVISION	PROJECT NO	SHEET NO
	COLORADO	S 0063(2)	1

STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS — STATE OF COLORADO

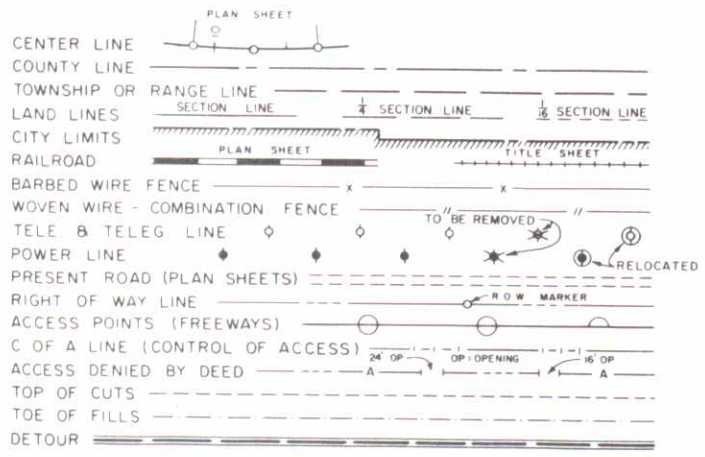
PLAN AND PROFILE OF ~~PROPOSED~~ COMPLETED

FEDERAL AID PROJECT NO. S 0063(2)

STATE HIGHWAY NO. 63

WASHINGTON COUNTY

CONVENTIONAL SIGNS



SCALES OF ORIGINAL DRAWINGS

ON PLAN, 1 IN. = 100 FT.
ON PROFILE { 1 IN. = 100 FT. HORIZONTAL; 1 IN. = 10 FT. VERTICAL

GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD

GROSS LENGTH OF PROJECT } 23,899.0 LIN. FT. = 4.526 MILES
NET LENGTH OF PROJECT }

Contractor: Lawrence Construction Co.
Resident Engineer: C.O. Myles
Started December 1, 1970
Completed August 13, 1971

INDEX OF SHEETS — AS CONSTRUCTED REVISED DATE 8-13-71

SHEET NO		
1	TITLE PAGE, SKETCH MAP & TABULATION OF LENGTH & DESIGN DATA	
2	TYPICAL SECTION & GENERAL NOTES	
3	SUMMARY OF APPROXIMATE QUANTITIES	
4	BASE COURSE AND SURFACING PLAN AND SUMMARY OF EARTHWORK QUANTITIES	
5	TABULATION OF GUARD RAIL & SKETCH MAP OF MATERIAL PIT	
6	STRUCTURE QUANTITES	
7 — 15	ALIGNMENT PLAN & PROFILE	
16 — ~~26~~	~~STRUCTURES CROSS SECTIONS~~ Channel Improvement Sta 315+	
17	Reduced Embankment Cross Sections	
M-203-A	SUPERELEVATION & WIDENING OF CURVES — CROWNED HIGHWAYS	7-30-68
M-203-B	APPROACH ROADS, FLARING, CUT SLOPE TREATMENT, BRIDGE & CREST WIDENING	4-27-70
M-203-C	DITCH TYPES	7-23-68
M-206-A	EXCAVATION AND BACKFILL FOR STRUCTURES (2 SHEETS)	9-23-70
M-603-CA	CONCRETE AND METAL END SECTIONS	7-23-68
M-603-M	METAL CULVERT PIPE — H-20 LOADING	7-23-68
M-603-RC	REINFORCED CONCRETE PIPE	7-23-68
M-606-AB	GUARD RAIL, TYPE 3 (3 SHEETS)	2-18-70
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

"As Constructed NO Revisions" Sheet 2 thru 7

TABULATION OF LENGTH AND DESIGN DATA

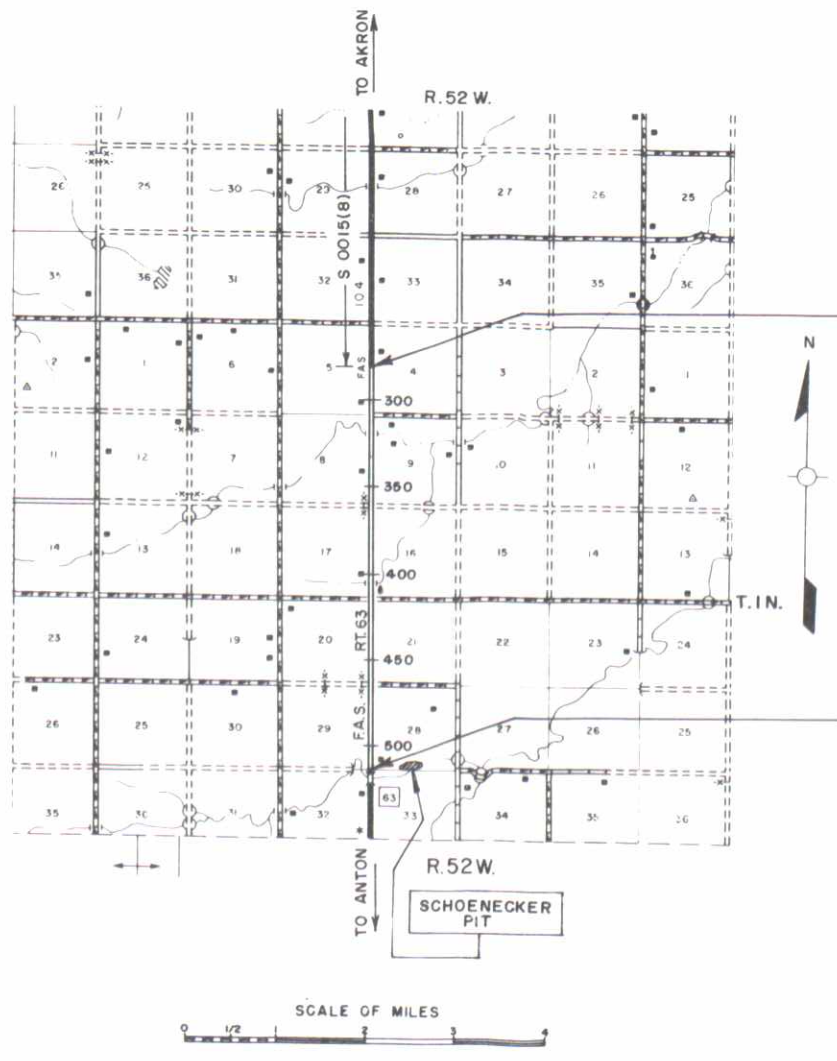
STATION		ROADWAY LIN. FT.
STA. 280+00 BEG. S 0063(2)= STA 280+00 END S 0015(8)		23,899.0
STA. 518+99.0 END S 0063(2)		
TOTAL		23,899.0

SUMMARY

	LIN. FT.	MILES
TOTAL (Net & Gross Length)	23,899.0	4.526

DESIGN DATA

MAXIMUM GRADE	2.39%
MAXIMUM DEGREE OF CURVE	0°30'
SSD HORIZONTAL (MIN.)	>1300'
SSD VERTICAL (MIN.)	640'
MAXIMUM DESIGN SPEED	70 mph
ADT 1990	760
DHV 1990	90



AS CONSTRUCTED PLANS
RETURN TO DIST. 4 DESIGN

SEE SPECIAL PROVISIONS FOR NOTICE TO BIDDERS

DIVISION OF HIGHWAYS

FINAL APPROVAL OF AS CONSTRUCTED PLANS

John G. Peltier — DIST. CONST. ENGINEER — 10/13/71 DATE

DIVISION OF HIGHWAYS

APPROVED

Chas. E. Shumate — CHIEF ENGINEER — 10-20-70 DATE

By: L. L. Bowers, Deputy Chief Engr.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

APPROVED _____ DATE

_____ DIVISION ENGINEER

G.S.

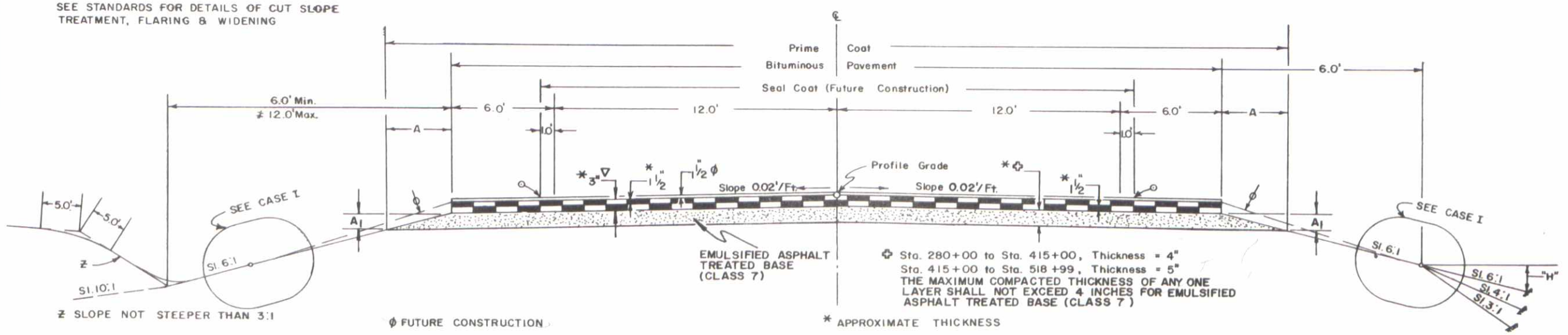
STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS - STATE OF COLORADO
FORM D.O.H. 126
MAY, 1968

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	S 0063(2)	2	

TYPICAL SECTION

NOTE

SEE STANDARDS FOR DETAILS OF CUT SLOPE TREATMENT, FLARING & WIDENING



≠ SLOPE NOT STEEPER THAN 3:1

EXCAVATION BELOW 6:1 SLOPE AND/OR 10:1 SLOPE WILL NOT BE PERMITTED.

THE DEPTH AND WIDTH OF THE SIDE DITCH SHALL BE VARIED WHERE NECESSARY IN ORDER TO PROVIDE PROPER DRAINAGE.

ϕ FUTURE CONSTRUCTION

ϕ THE CONTRACTOR WILL BE REQUIRED TO PLACE ADDITIONAL EMBANKMENT MATERIAL TO THIS LINE AFTER COMPLETION OF THE PAVING OPERATION. THIS WILL BE CONSIDERED AS SUBSIDIARY WORK AND WILL NOT BE PAID FOR SEPARATELY.

≠10.0 FEET USED FOR ROADWAY QUANTITIES.

* APPROXIMATE THICKNESS

⊙ LOCATION OF 3" WIDE SOLID WHITE PAINTED STRIPE (STATE FORCES).

BREAK POINTS ON SLOPES AND IN BOTTOMS OF DITCHES SHALL BE ROUNDED ON CONSTRUCTION FOR A PLEASING APPEARANCE.

▽ BITUMINOUS PAVEMENT WILL BE LAYED DOWN IN ONE 3" LAYER IF DIRECTED BY ENGINEER.

✥ Sta. 280+00 to Sta. 415+00, Thickness = 4"
Sta. 415+00 to Sta. 518+99, Thickness = 5"
THE MAXIMUM COMPACTED THICKNESS OF ANY ONE LAYER SHALL NOT EXCEED 4 INCHES FOR EMULSIFIED ASPHALT TREATED BASE (CLASS 7)

CONTROL DATA

THICKNESS	A	A_1
4"	2.3'	0.4'
5"	2.8'	0.5'

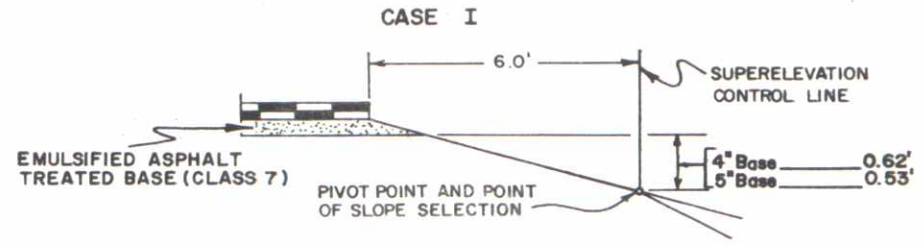
FILL SLOPES:
ON CURVES & TANGENTS

"H"	SLOPES
5' OR LESS	6 : 1
5'+ TO 8'	4 : 1
8+ TO 10'	3 : 1
OVER 10'	2 : 1

MATERIAL SHALL BE PLACED IN SEPARATE COURSES AT THE FOLLOWING RATES PER 100 LIN. FT. OF ROADWAY.

BITUMINOUS PAVEMENT	TOP LAYER	32 TONS
	BOTTOM LAYER	32 TONS
4" EMULSIFIED ASPHALT TREATED BASE		84 TONS
5" EMULSIFIED ASPHALT TREATED BASE		106 TONS

CASE I



GENERAL NOTES

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

●PRIME COAT MC-70_____@ 0.40 GALS. PER SQ. YD.

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

ROAD APPROACHES WHICH REQUIRE BITUMINOUS PAVEMENT SHALL BE PRIMED AND A 2" THICKNESS OF PAVEMENT PLACED AS FOLLOWS:

PUBLIC APPROACHES AND ENTRANCES TO BUILDINGS OR RESIDENCES SHALL BE PAVED 50 FT. OUT FROM EDGE OF SHOULDER OR TO THE RIGHT OF WAY LINE WHICHEVER IS LESS. FIELD ENTRANCES SHALL BE PAVED 4 FT. OUT FROM EDGE OF SHOULDER.

IT IS ESTIMATED THAT 700 HOURS OF FLAGGING FOR CONTROLLING TRAFFIC WILL BE REQUIRED FOR THIS PROJECT.

DILUTED EMULSIFIED ASPHALT SHALL BE USED AS A DUST PALLIATIVE WHERE REQUIRED AND SHALL CONSIST OF A DILUTION OF SS-1 AND WATER, THE PORTIONS OF WHICH SHALL BE 9 PARTS WATER AND 1 PART SS-1, BASED ON VOLUME MEASUREMENT. LOCATIONS SHALL BE AS ORDERED.

●DILUTED EMULSIFIED ASPHALT SHALL BE USED IN PLACE OF MC 70 FOR PRIME COAT IF DIRECTED BY THE ENGINEER. IF USED IT SHALL CONSIST OF A DILUTION OF SS-1 AND WATER, THE PORTIONS OF WHICH SHALL BE 4 PARTS WATER AND 1 PART SS-1, BASED ON VOLUME MEASUREMENT.

ANY LAYER OF BITUMINOUS PAVEMENT THAT IS TO HAVE A 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 6 INCHES
BASES OF FILLS 6 INCHES

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

GUARD POSTS WILL BE REMOVED BY STATE FORCES.

SKI TYPE DEVICE AT LEAST 30 FEET IN LENGTH SHALL BE FURNISHED WITH EACH PAVER EQUIPPED WITH AN AUTOMATIC CONTROL SYSTEM.

STATEMENT OF HIGHWAYS OF COLORADO FORM 714 (LINEN) OCT. 1957

SUMMARY OF ~~APPROXIMATE~~ QUANTITIES

AS CONSTRUCTED
REVISED DATE 8-13-71

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	COLORADO	S 0063(2)	3	

INDEX BOOK	INDEX PAGE	INDEX SHEET	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	PROJECT TOTALS	FINAL	DIFF
2		6	202	REMOVAL OF STRUCTURE	EACH	13	13 ✓	0
Electronic Computer 283		16	203	UNCLASSIFIED EXCAVATION	CU. YD.	54,000	56,597 ✓	+2597
Form 400 Electronic Computer 283		16	203	EMBANKMENT (MODIFIED)	CU. YD.	62,000	69,882 ✓	+7882
3	3		204	HAUL	YD. MI.	26,100	18,683 ✓	-7417
Electronic Computer Greeley Form 100			204	HAUL	TON MI.	110,800	99,483 ✓	-11,317
2		6	206	STRUCTURE EXCAVATION (HAUL)	CU. YD.	260	252 ✓	- 8
2		6	206	STRUCTURE BACKFILL (CLASS 3) (HAUL)	CU. YD.	510	506 ✓	- 4
Form 71			209	WETTING	M GAL.	2,520	876	-1644
2	52	6	210	RESET MAILBOX STRUCTURE	EACH	4	4 ✓	0
2	50	6	210	RESET FENCE	LIN. FT.	300	352 ✓	+ 52
W.O. 19812			210	RELAY PIPE (18 INCH)	LIN. FT.	28	0	- 28
2		6	210	RELAY PIPE (24 INCH)	LIN. FT.	48	48 ✓	0
2	11-19	6	210	RELAY PIPE (72 INCH)	LIN. FT.	114	108 ✓	- 6
Scalebooks			303	EMULSIFIED ASPHALT TREATED BASE (CLASS 7)	TON	25,800	21,666.3 ✓	-4133.7
Scalebooks			403	HOT BITUMINOUS PAVEMENT (GRADING F)	TON	15,800	15,692.15 ✓	-107.85
Form 49			411	ASPHALT CEMENT (120-150 PEN)	TON	1,130	1013.695 ✓	-116.305
W.O. #19812			411	EMULSIFIED ASPHALT (SS-1)	GAL.	31,900	0	-31,900
Form 49			411	EMULSIFIED ASPHALT (CSS-1)	GAL.	186,100	140,946 ✓	-45,154
Form 49			411	LIQUID ASPHALTIC MATERIAL (MC-70)	GAL.	45,600	16,502 ✓	-29,098
2	15	6	506	RIPRAP	CU. YD.	220	195.3 ✓	24.7
2	51		606	GUARD RAIL TYPE 3	LIN. FT.	450	450 ✓	0
Form 71			614	FLAGGING	HOUR	700	443 ✓	-257
2		6	617	18 INCH CULVERT PIPE	LIN. FT.	266	266 ✓	0
2		6	617	24 INCH CULVERT PIPE	LIN. FT.	47	47 ✓	0
2		6	617	36 INCH CULVERT PIPE	LIN. FT.	34	34 ✓	0
2		6	617	48 INCH CULVERT PIPE	LIN. FT.	108	108 ✓	0
2		6	617	72 INCH CULVERT PIPE	LIN. FT.	436	438 ✓	+ 2
Form 266 1-29-71			620	FIELD LABORATORY	EACH	1	1	0
W.O. 19812			620	SANITARY FACILITY	EACH	1	0	- 1
Form 266 8-25-71			621	MAINTENANCE OF DETOURS	LUMP SUM	●	$1000.00	
Form 266 8-3-71			626	MOBILIZATION	LUMP SUM	●	$14,000.00	
				STATE FORCES				
				FURNISHING AND INSTALLING IDENTIFICATION SIGN	EACH	2	2	0
				Installed Dec. 12. 1970 Removed Aug. 8. 1971				
				NON-FEDERAL AID — RIGHT OF WAY				
				EASEMENT	LUMP SUM	●		
				NON-FEDERAL AID — STATE FORCES				
				SIGNING AND STRIPING ENTIRE PROJECT	LUMP SUM	●		
				Striping and Signs August 8, 1971				

STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS – STATE OF COLORADO
FORM D.O.H. 126
JULY, 1968

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	S 0063(2)	4	

AS CONSTRUCTED
REVISED DATE 8-13-71

BASE COURSE AND SURFACING PLAN

MATERIAL TO BE PLACED	SOURCE	TONS USED						HAUL TON MILE					
		EMULSIFIED TREATED BASE		HOT BITUMINOUS PAVEMENT				EMULSIFIED TREATED BASE		HOT BITUMINOUS PAVEMENT			
		CLASS 7	FINAL	*BOTTOM LAYER GRADING F		* TOP LAYER GRADING F	FINAL	CLASS 7	FINAL	BOTTOM LAYER		TOP LAYER	FINAL
281+00 – 289+36 289+36 – 410+00 280+00 TO 415+00 410+00 – 456+00 415+00 TO 518+99 456+00 – 483+00	SCHOENECKER PIT	① 11,340 ② 11,024	① 313.00 ① 9885.50 ② 4765.30 ① 2225.15 ② 3726.25	4,320 3,328		4,320 3,328	15,109.95	42,504 16,369	1553.0 36,675.2 10,150.1 3804.2 3130.0	16,192 4,942		16,192 4,942	34,148.5
483+00 – 519+00 APPROACH TO PROJECT		147	84.00	45		45	109.50	70	42.8	24		24	1.1
EST. FOR IRREGULARITIES		2,251	0.00	—		—		5,895	0	—		—	
FROM LIST OF STRUCTURES		507	395.40	188		—	472.70	1,328	573.4	518		—	536.7
ADDITIONAL for A & D LANES		472	269.70	190		—		1,236	1,179.0	523		—	442.6
From Pit to Sta. 519+00													7,846.1
TOTALS		25,741	21,666.3	8,071		7,693	15,692.15	67,402	56,508	22,199		21,158	42,975

*Hot Bituminous Pavement will be layed down in one 3" layer if directed by the Engineer.
① 4" Thickness
② 5" Thickness

NOTE:

STABILIZATION BASED ON:

1. E. D. L. A. 18K. _____ = 13
2. REGIONAL FACTOR _____ = 1.25
3. SERVICEABILITY INDEX _____ = 2.0
4. HOT BITUMINOUS PAVEMENT _____ = 0.35 (R+ = 89)
5. EMULSIFIED ASPHALT TREATED BASE (CLASS 7) _____ = 0.23 (R+ = 100+)
6. SUBGRADE ("R" VALUE) _____ = 20 to 34

SUMMARY OF EARTHWORK QUANTITIES

INDEX BOOK	INDEX PAGE	INDEX SHEET		TOTAL CU.YD.	FINAL	
			UNCLASSIFIED EXCAVATION			
			ROADWAY (From Electronic Computer)	47,834	47224	
3	1-6		Subgraded Areas		4905	
			Structure Quantities as Embankment	570		
2	15-25		Structure Quantities as Excavation	1,000	1269	
			Structure Quantities as Ditch Excavation	30		
			Est. for Cut Slope Treatment	875		
		16	Channel Improvement Lt. Sta 315+		1527	
Form 400			Stripping (Removing Overburden)	1,500	1672	
			Stripping (Replacing Overburden)	1,500		
			TOTAL FOR PAY QUANTITY	53,309	56,597	
			EMBANKMENTS (MODIFIED)			
			(Moisture and Density Control)			
2	15-25		Structures		847	
Electronic Computor			Embankment (Net)	31,669	34,284	
		Plans	Base of Cuts and Fills	29,697	29,697	
3	1-6		Replace Subgraded Material		4905	
		16	Channel Improvement Lt. Sta. 315+		149	
			TOTAL FOR PAY QUANTITY	61,366	69,882	
				YD. MI.		
			HAUL			
			From Mass Diagram, I. B. M.	26,051	17,782	
3	3		Remove & Replace Subgraded Material		901	
			TOTAL FOR PAY QUANTITY	26,051	18,683	

INDEX BOOK	INDEX PAGE	INDEX SHEET		TOTAL CU.YD.		
			ROADWAY QUANTITIES BALANCE (FOR INFORMATION ONLY)			
			EXCAVATION			
			Unclassified	47,834		
			Δ Less Excess	−331		
			TOTAL	47,503		
			EMBANKMENT (Roadway from Electronic Computer)	31,669		
			EMBANKMENT X FACTOR (1.5)	47,503		

Δ To be used in flattening Slopes as directed.

STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS - STATE OF COLORADO
FORM D.O.H. 126
JULY, 1968

SCHOENECKER PIT

OWNER: BARTHEL & CECILIA SCHOENECKER, ELBA RT. AKRON, COLO. 80720

LOCATION: S.W. 1/4 SEC. 28 T. IN R. 52W

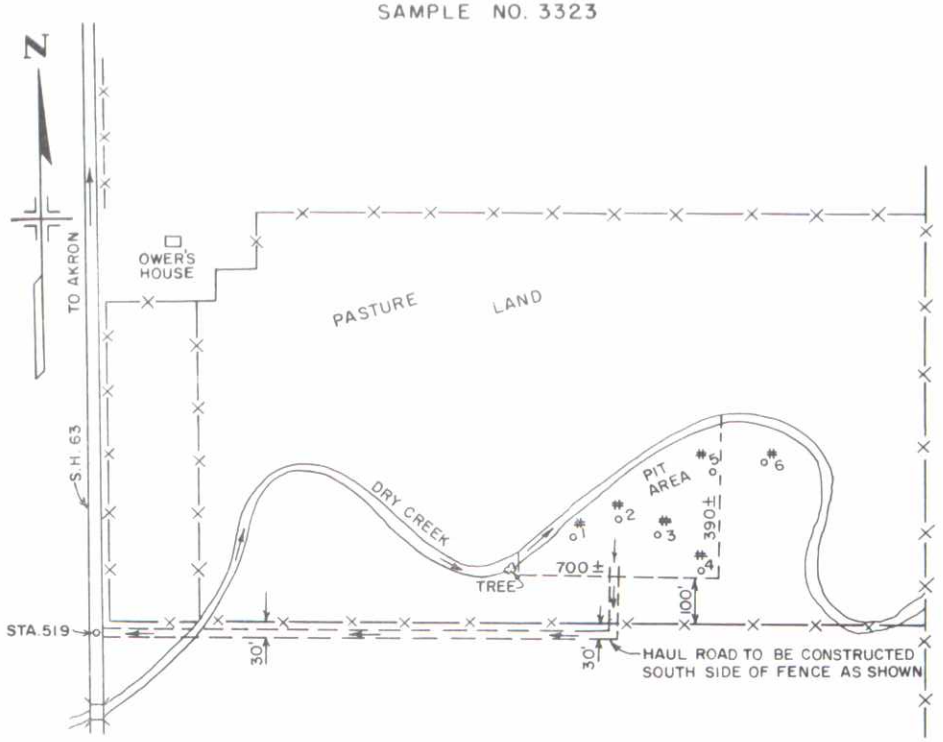
USE: AGGREGATE FOR HOT BITUMINOUS PAVEMENT AND EMULSIFIED TREATED BASE

QUANTITY AVAILABLE: AMPLE

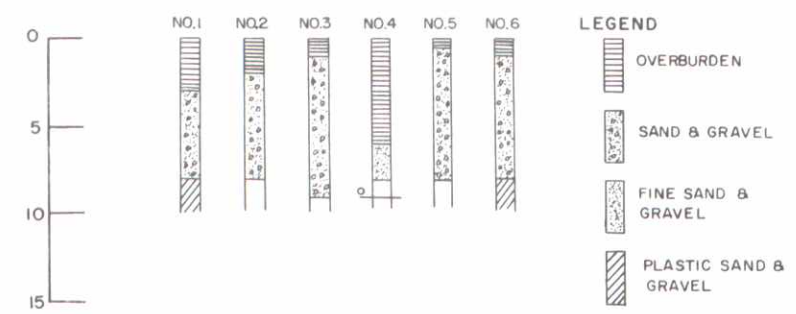
STRIPPING: REMOVING OVERBURDEN (16.72 ~~1,500~~ CU. YDS.) IN ADDITION TO OPTION ~~REPLACING OVERBURDEN (1,500 CU. YDS.)~~ REQUIREMENTS.

HAUL DISTANCE: 0.5 MILES TO STA. 519+00

SAMPLE NO. 3323



LOG OF PIT



° GROUNDWATER TABLE

NOTE: THIS DRY CREEK BOTTOM COULD BE SUBJECT TO FLASH FLOODING.
ALL MATERIAL TESTS AND GROUNDWATER TESTS TABLE SHOWN AS OF AUGUST 12, 1970.

AS CONSTRUCTED
REVISED DATE 8-13-71

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	S 0063(2)	5	

TABULATION OF GUARD RAIL

STATION	SIDE	GUARD RAIL TYPE 3		ANCHOR AND END DATA							
				BEGIN			END				
				FLARE	TYPE OF ANCHOR		FLARE	TYPE OF ANCHOR			
			FINAL	W			W				
		LIN. FT.		FT.			FT.				
314+30 – 316+55	LT.	225	225	4	I		4		I		
314+00 – 316+25	RT.	225	225	4	I		4		I		
TOTAL		450	450								

Book 2, pp 51

DEPARTMENT OF HIGHWAYS, STATE OF COLORADO
FORM D.O.H. 125 (LINEN)
REV. OCT. 1967

STRUCTURE QUANTITIES

AS CONSTRUCTED
REVISED DATE 8-13-71

FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.
8	COLORADO	S 0063(2)	6

INDEX BOOK	INDEX PAGE	INDEX SHEET	LOCATION	UNCLASSIFIED EXCAVATION CUBIC YARD EXCAV.	UNCLASSIFIED EXCAVATION CUBIC YARD EMB.	UNCLASSIFIED EXCAVATION CUBIC YARD DITCH	STRUCTURE EXCAVATION CUBIC YARD	STRUCTURE BACKFILL CUBIC YARD CL. 3	REMOVAL OF STRUCTURE EACH	EMULSIFIED ASPHALT TREATED BASE (CLASS 7) TON	HOT BITUMINOUS PAVEMENT (GRADING F) TON	RELAY PIPE LIN. FT. 18"	RELAY PIPE LIN. FT. 24"	RELAY PIPE LIN. FT. 72"	CULVERT PIPE LINEAR FEET 18"	CULVERT PIPE LINEAR FEET 24"	CULVERT PIPE LINEAR FEET 36"	CULVERT PIPE LINEAR FEET 48"	CULVERT PIPE LINEAR FEET 72"	"H" OVER CULV. FT.	RIPRAP CU. YDS.	△ END SECTION EACH 24"	△ END SECTION EACH 36"	△ END SECTION EACH 72"	MISCELLANEOUS
2	7		303+34	20			9	5	1	~~18~~	~~6~~				36					1					
			~~302+18 – 303+68~~		~~50~~					*	*														
2	9		306+30		~~40~~		12	10	1	~~50~~	~~27~~				70					1					
			~~303+92 – 304+42~~		~~50~~					*	*														
2	11		306+54		~~10~~		9	4	1	~~16~~	~~6~~				34					1					
2	13		311+00		~~10~~		12	4		~~16~~	~~2~~				32					1					
			314+80 – 315+76	~~900~~																					LUMP SUM – MAINTENANCE OF DETOURS.
	Form 266		312+ – 318+																						~~500~~ 352 LIN. FT. RESET FENCE. Book 2 pp 50
2	15		314+98				12	55						36						42 ~~28~~	2	~~31~~			2	
2	17		315+13				12	55						~~36~~ 28						42 ~~40~~	2	~~31~~			2	
2	19		315+28				12	55	1					~~36~~ 28						42 ~~44~~	3	~~31~~	195.3		2	
2	20		315+43				12	55						~~36~~						78 ~~42~~	2	~~31~~			2	
2	22		315+58				12	55												78	2	~~31~~			2	
2	24		315+73				12	55												78	2	~~31~~			2	
2	25		315+88				12	55												78	2	~~31~~			2	
2	26		319+59		~~10~~		10	4	1	~~16~~	~~2~~				30					1					
2	27		329+44	~~10~~			~~8~~	~~5~~		~~16~~	~~6~~	28								1					
2	28		335+60	~~10~~			2	1	1	~~16~~	~~6~~						4 2			1					
2	29		337+50	~~10~~			~~8~~	~~5~~	2	~~16~~	~~8~~						4 2			1					
2	30		358+34		~~20~~					~~16~~	~~2~~						4 2			1					
2	31		358+43		~~10~~		~~6~~ 6	~~4~~ 4		~~16~~ 16	~~2~~ 2				30		4 2			1					
2	32		393+40	~~10~~			~~3~~ 3	2		~~16~~ 16	~~6~~ 6														
			~~393+48~~							~~16~~ 16	~~2~~ 2														
2	34		401+00				47	55										16 16 16 20 20 20		2 2 2 3 3 3					
			408+81 – 412+31		~~50~~					*	*														
			412+93		~~30~~					~~50~~	~~27~~														
			413+55 – 417+05		~~50~~					*	*														
			408+92 – 412+42		~~50~~					*	*														
			413+04		~~30~~					~~50~~	~~27~~														
			413+66 – 417+16		~~50~~					*	*														
2	37		413+56			~~10~~	38	16	2				48		2	35				2				2		
2	38		421+00		~~10~~		2	1	1	~~16~~	~~2~~				2					1					
2	39		445+00		~~10~~		10	4		~~16~~	~~6~~				32					1					
2	40		465+87		~~10~~				2	~~27~~	~~11~~														
2	42		465+96		~~10~~					~~16~~	~~2~~														
			468+08			~~20~~	8	11										17 17		1 1				2		
			474+81	~~20~~						~~16~~	~~2~~														
			475+	20						~~32~~	~~16~~														
			513+05							~~16~~	~~9~~														
			513+05		~~10~~					~~16~~	~~2~~														
			518+95							~~16~~	~~2~~														
			518+95		~~10~~					~~16~~	~~2~~														
			518+99 – 521+		~~50~~					*	*														
			ENTIRE PROJECT				252	506	13			0	48	108	266	47	34		108	438	195.3			4	4 – RESET MAILBOX STRUCTURE. Book 2 pp 52
			TOTALS	~~1,000~~	~~570~~	~~30~~	260	~~518~~	13	* ~~807~~	* ~~183~~	~~28~~	48	~~115~~	266	47	34		108	~~436~~	~~217~~				

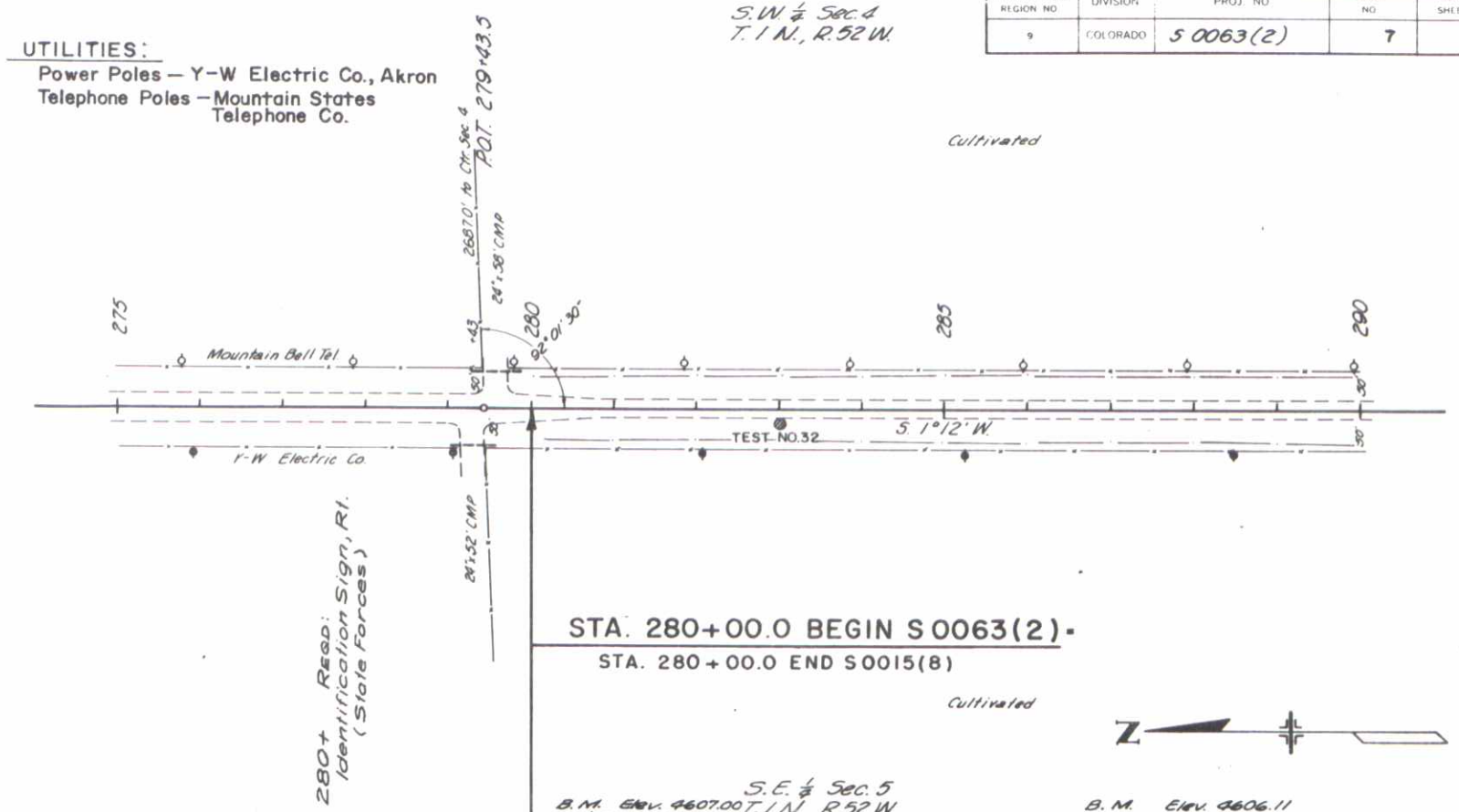
△ FOR INFORMATION ONLY. * QUANTITIES IN BASE COURSE AND SURFACING PLAN.
4 Quantities included in Earthwork X-Sections.

•REQUIRES EXTERNAL CONNECTING BAND – TYPE TO BE APPROVED BY THE ENGINEER.

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	S 0063(2)	7	

UTILITIES:
Power Poles — Y-W Electric Co., Akron
Telephone Poles — Mountain States Telephone Co.

S.W. ¼ Sec. 4
T. 1 N., R. 52 W.



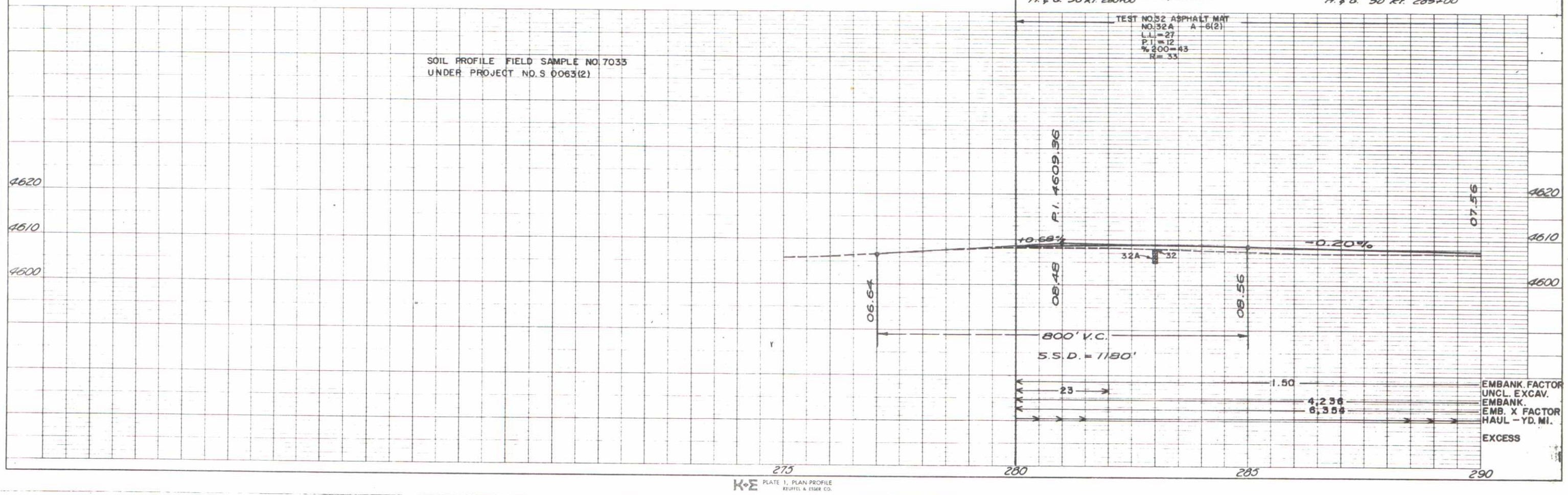
STA. 280+00.0 BEGIN S 0063(2)·
STA. 280+00.0 END S 0015(8)

S.E. ¼ Sec. 5
T. 1 N., R. 52 W.

B.M. Elev. 4607.00
H & G. 50' Rt. 280+00

B.M. Elev. 4606.11
H & G. 50' Rt. 285+00

SOIL PROFILE FIELD SAMPLE NO. 7033
UNDER PROJECT NO. S 0063(2)



PLAN
PROFILE
No. DP 400

K·E PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.
48 7012 IMPERIAL

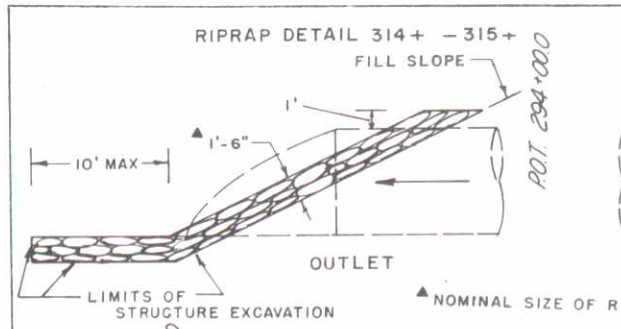
DEPARTMENT OF HIGHWAYS, STATE OF COLORADO
Form D. O. H. 134
Aug. 1965

AS CONSTRUCTED
REVISED

DATE 8-13-71	PROJ. NO.	SHEET NO.	TOTAL SHEETS
DIVISION 9 COLO.	S 0063 (2)	8	

PLAN
NOTE BOOK
NO. 29699

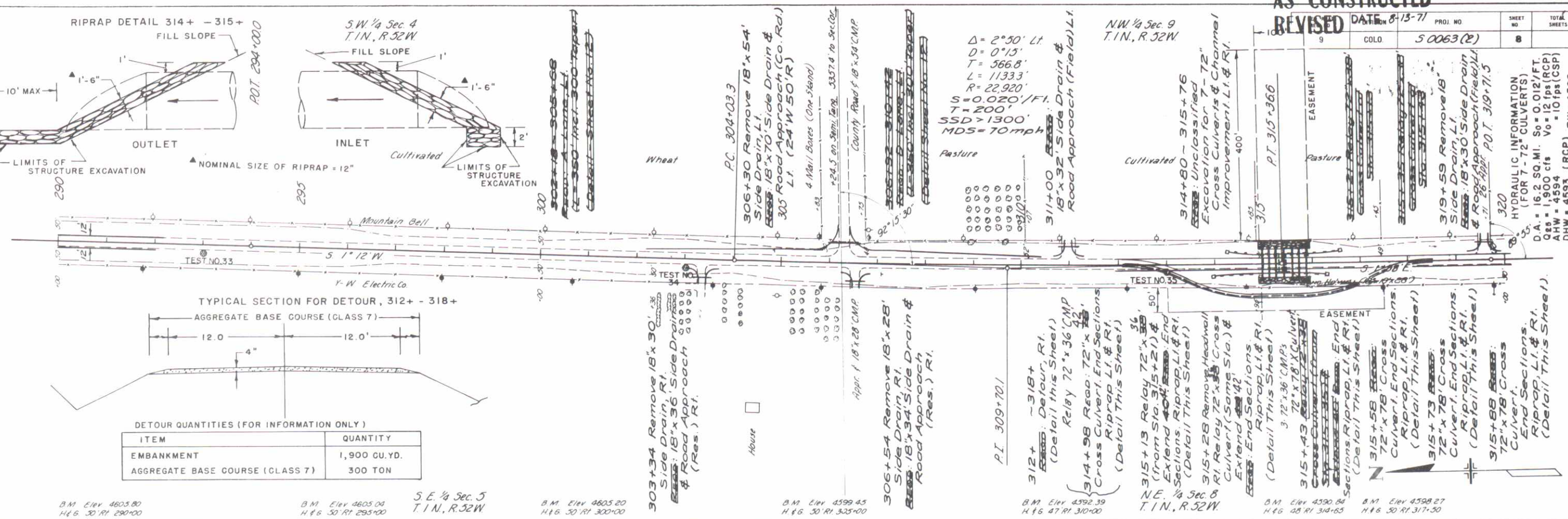
RIPRAP DETAIL 314+ - 315+



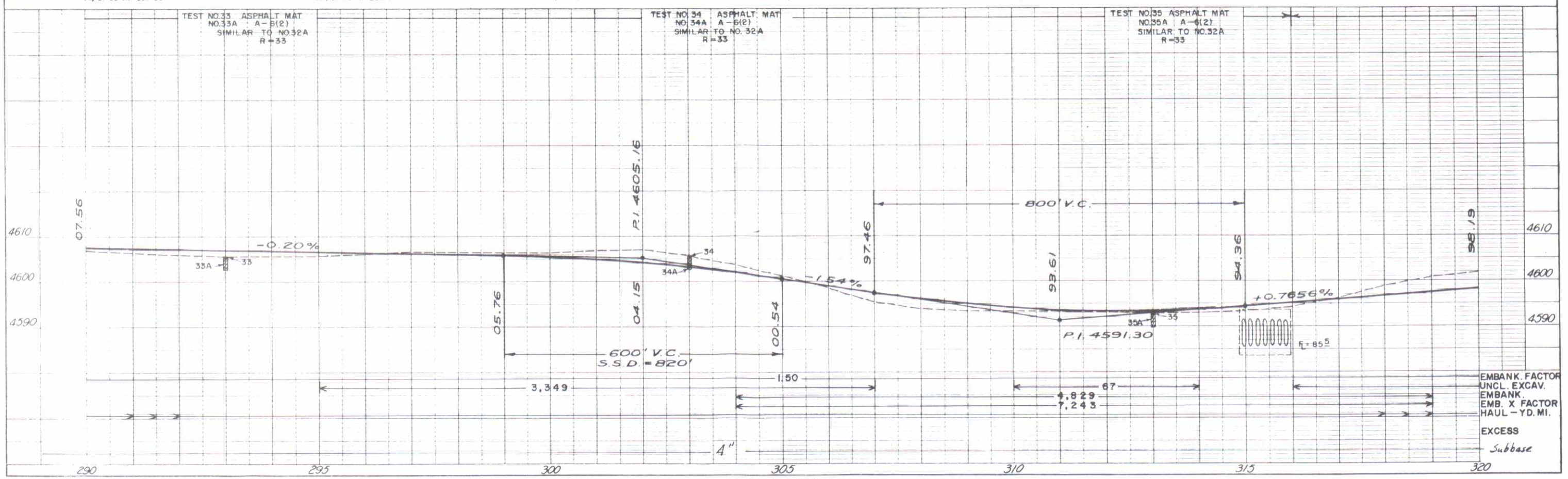
TYPICAL SECTION FOR DETOUR, 312+ - 318+

DETOUR QUANTITIES (FOR INFORMATION ONLY)

ITEM	QUANTITY
EMBANKMENT	1,900 CU.YD.
AGGREGATE BASE COURSE (CLASS 7)	300 TON



PROFILE
NOTE BOOK
NO. 29400



K+E PLATE 1. PLAN PROFILE
KEUFFEL & ESSER CO.

K&E PLATE 1. PLAN-PROFILE

PROFILE

PLAN

AS CONSTRUCTED
REVISED DATE 8-13-71

RED ROAD REC NO	DIVISION	PROJ NO	SHEET NO	TOTAL SHEETS
9	COLO	S0063(2)	9	

DEPARTMENT OF HIGHWAYS STATE OF COLORADO

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	COLORADO	S 0063(2)	10	

AS CONSTRUCTED
REVISED DATE 8-13-71

PLAN
FED. AID PROJ. NO.
31303
31304
31905

PROFILE
~ DP400

S.W.¼ Sec. 9
T. 1 N., R. 52 W.

N.W.¼ Sec. 16
T. 1 N., R. 52 W.

P.O.T. 365+00.0

358+34 Road Approach (Field) Lt.

Pasture

Mountain Bell

TEST NO. 39 — S 1° 38' E — TEST NO. 40 — S 0° 23' W. — TEST NO. 41

Y.W. Elect Co.

Cultivated Dry Land

358+43 Side Drain 18"x30' & Road Approach (Field) Rt.

Δ = 2° 01' Rt.
T = 201.6'
L = 403.3'
D = 0° 30'
R = 11,460'
S = 0.020 ft./ft.
T = 200'
SSD = 1300'
MDS = 70 mph

PC 356+58.4

PT 360+61.7

S.E.¼ Sec. 8
T. 1 N., R. 52 W.

N.E.¼ Sec. 17
T. 1 N., R. 52 W.

B.M. Elev. 4628.46 H. & G. 49' Rt. 353+33

B.M. Elev. 4637.23 H. & G. 50' Rt. 357+27

B.M. Elev. 4644.72 H. & G. 53' Rt. 363+52

B.M. Elev. 4647.65 H. & G. 53' Rt. 369+76

B.M. Elev. 4653.78 H. & G. 53' Rt. 376+07

TEST NO.39 ASPHALT MAT
NO.39A SIMILAR TO NO.36A
NO.39B A-6(9)
L.L. = 40
P.I. = 23
%200 = 53
R = 25

TEST NO.40 ASPHALT MAT
NO.40A SIMILAR TO NO.36A
NO.40B A-6(2)
SIMILAR TO NO.32A
R = 33

TEST NO.41 ASPHALT MAT
NO.41A SIMILAR TO NO.36A
NO.41B A-6(2)
SIMILAR TO NO.32A
R = 33
NO.41C A-4(0)
L.L. = N.V.
P.I. = N.P.
%200 = 47
R = 47

P.I. 4646.70

+1.74%

+0.54%

24.14
25.82
24.08
39.74
45.50
48.86
55.88

39A 39 39B
40A 40 40B
41B 41 41A 41C

800' V.C.
S.S.D. = 980'

EMBANK. FACTOR	337	785	1.50
UNCL. EXCAV.			1,741
EMBANK.			2,612
EMB. X FACTOR			5,973
HAUL – YD. MI.		21,493	
EXCESS			
Subbase	4"		

350 355 360 365 370 375 380

4660 4650 4640 4630 4620

K•E PLATE E-TEXTAVE 7 X 5
KEUFFEL & ESSER CO.
48 2012 IMPERIAL

STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS STATE OF COLORADO
D.O.H. FORM NO. 134
JULY 1968

FEDERAL HIGHWAY PROJECT NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
-9-	COLORADO	S 0063 (2)	11	

AS CONSTRUCTED
REVISED DATE 8-13-71

N.W. ¼ Sec. 16
T. 1 N., R. 52 W.

S.W. ¼ Sec. 16
T. 1 N., R. 52 W.

P.O.T. 388+000

393+46 Road Approach (Res.) Rt.

Pasture

401+00 — 3-48"x84' Cross Culverts 16' Lt. & 20' Rt. No End Sections.
D.A. = 1000 Acres
Q25 = 300 c.f.s.

3-48" x 68' CMPs

380 385 390 395 400 405 410

Mtn. Bell Tel.

TEST NO. 42
F.W. Electric Co.

S 0°23' W

TEST NO. 43

TEST NO. 44

55°

88°27'

-67.0

-64

88°04'

LP Gas Tank

Brick Ho.

2-24"x32' CMP

393+40 Road Approach (Res.) Rt.
Extend 24"x32' CMP Sidedrain & Outlet & 2 Inlet.

N.E. ¼ Sec. 17
T. 1 N., R. 52 W.

B.M. Elev. 4656.35
H.&G. 52' Rt. 382+50

B.M. Elev. 4654.97
51' Rt. 388+83

B.M. Elev. 4647.55
H.&G. 52' Rt. 392+09

S.E. ¼ Sec. 17
T. 1 N., R. 52 W.

B.M. Elev. 4647.03
H.&G. 52' Rt. 397+32

B.M. Elev. 4645.65
H.&G. 50' Rt. 403+40

B.M. Elev. 4654.10
H.&G. 50' Rt. 404+30

B.M. Elev. 4663.20
H.&G. 51' Rt. 407+33

N

PLAN
SURVEYED
PLOTTED
NOTE BOOK CHECKED
NUMBER BY OF MAP CHECKED
3303
3344
3309

PROFILE
SURVEYED
PLOTTED
NOTE BOOK CHECKED
NO. DP 4006 BY OF MAP CHECKED
AS NOTED

TEST NO. 42 ASPHALT MAT
NO. 42A SIMILAR TO NO. 36A
NO. 42B A-6(2)
SIMILAR TO NO. 32A
R = 33

TEST NO. 43 ASPHALT MAT
NO. 43A SIMILAR TO NO. 36A
NO. 43B A-2-7(1)
L.L. = 47
P.I. = 29
%200 = 18
R = 34

TEST NO. 44 ASPHALT MAT
NO. 44A SIMILAR TO NO. 36A
NO. 44B A-6(1)
L.L. = 27
P.I. = 12
%200 = 37
R = 33

4670
4660
4650
4640

P.I. 4657.50
+0.54%
42
42B
42A
56.23
55.88
54.05
600' V.C.
S.S.D. = 710'
-1.1493%
43
43B
43A
43.71
42.77
600' V.C.
P.I. 4640.26
+2.20%
44
44A
44B
46.86
64.46
66.56
66.66
F = 37

1.50 30

EMBANK. FACTOR
UNCL. EXCAV.
EMBANK.
EMB. X FACTOR
HAUL — YD. MI.
EXCESS
Subbase

332		5,621	
498		8,432	
	4"		

380 385 390 395 400 405 410

PLATE 1 — PLAN — PROFILE
MADE AND PRINTED IN U.S.A.
CHARLES BRUNING COMPANY

STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS - STATE OF COLORADO
D.H.W. FORM NO. 134
JULY 1948

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	S 0063(2)	13	

AS CONSTRUCTED
REVISED DATE 3-18-71

S.W. ¼ Sec. 21
T. 1 N., R. 52 W.

P.O.T. 447+83.1

P.O.T. 457+89

465+87 Remove 2'(Inlet) & 2'(Outlet) of 18"x 50' Side Drain, Lt.
~~Reset~~ Road Approach (Co. Rd.) Lt. (24'W 50'R.)

468+08 Extend 36"x 52' Cross Culvert 17' Lt. & 17' Rt. ~~Reset~~ End Sections.

445+00 ~~Reset~~ 18"x 32' Side Drain & Road Approach (Field) Rt.

465+96 ~~Reset~~ Road Approach (Field) Rt.

468+69 Reset Fence Lines Lt.

TEST NO. 48

TEST NO. 49

TEST NO. 50

Mountain Bell

F.W. Elect. Co.

S. 0° 06' E

S. 0° 23' E.

36"-52' CMP

18"x 50' CMP

Mail Box

90°-37'-30"

90°-44'

P.I. 465+

Δ = 0°-17' Lt.

B.M. Elev. 4705.00 H.&G. 50' Lt. 441+95

B.M. Elev. 4713.32 H.&G. 50' Lt. 445+95

B.M. Elev. 4717.55 H.&G. 50' Lt. 450+50

S.E. ¼ Sec. 20
T. 1 N., R. 52 W.

B.M. Elev. 4717.51 H.&G. 50' Lt. 455+10

B.M. Elev. 4710.65 H.&G. 50' Lt. 459+69

B.M. Elev. 4702.66 H.&G. 50' Lt. 461+77

B.M. Elev. 4695.15 H.&G. 50' Lt. 465+59

TEST NO.48 ASPHALT MAT
NO.48A SIMILAR TO NO.36A
NO.48B A-7-6(12) SIMILAR TO NO.46B
R= 20
NO.48C A-6(3)
L.L.=30
P.I.=13
%200= 47
R =33

TEST NO.49 ASPHALT MAT
NO.49A SIMILAR TO NO.36A
NO.49B A-7-6(12) SIMILAR TO NO.46B
R= 20

TEST NO.50 ASPHALT MAT
NO.50A SIMILAR TO NO.36A
NO.50B A-7-6(12) SIMILAR TO NO.46B
R= 20

4730
4720
4710
4700
4690

P.I. 4723.36

+2.39%

-1.725%

+1.15%

600' V.C.

1200' V.C.

S.S.D. = 640'

P.I. 4695.76

04.24
09.02
17.19
13.01
00.93
97.92
99.21
00.96
99.94
99.46

48 48A 48B 48C
49 49A 49B
50 50A 50B

		1.50	
9,735			4,124
31			2,142
46			3,213
			EXCESS
5"		4"	Subbase

EMBANK. FACTOR
UNCL. EXCAV.
EMBANK.
EMB. X FACTOR
HAUL - YD. MI.

440 445 450 455 460 465 470

PLATE 1—PLAN—PROFILE

CHARLES BRUNING COMPANY

PLAN
PROFILE
NOTE BOOK
NO. 31303
NO. 31304
NO. 31305
NO. 31306
NO. 31307
NO. 31308
NO. 31309
NO. 31310
NO. 31311
NO. 31312
NO. 31313
NO. 31314
NO. 31315
NO. 31316
NO. 31317
NO. 31318
NO. 31319
NO. 31320
NO. 31321
NO. 31322
NO. 31323
NO. 31324
NO. 31325
NO. 31326
NO. 31327
NO. 31328
NO. 31329
NO. 31330
NO. 31331
NO. 31332
NO. 31333
NO. 31334
NO. 31335
NO. 31336
NO. 31337
NO. 31338
NO. 31339
NO. 31340
NO. 31341
NO. 31342
NO. 31343
NO. 31344
NO. 31345
NO. 31346
NO. 31347
NO. 31348
NO. 31349
NO. 31350

STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS STATE OF COLORADO
D.O.H. FORM NO. 134
JULY 1969

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	S 0063(2)	14	

AS CONSTRUCTED
REVISED DATE 8-13-71

PLAN
NOTE BOOK ALIGNMENT CHECKED BY OF MAP CHECKED
NO. 3503
NO. 3504
NO. 3505

N.W. ¼ Sec. 28
T. 1 N., R. 52 W.

P.O.T. 473+91.5

P.O.T. 485+00.0

S.W. ¼ Sec. 28
T. 1 N., R. 52 W.

P.O.T. 500+00.0

470 475 480 485 490 495 500

Road Approach (Constructed)

Mountain Bell

TEST NO. 51

TEST NO. 52
T.W. Elect. Co

TEST NO. 53

S 0°23' E

92°00'
93°32'
89°27'
90°00'

Dry Gul

Well

-92.9
-13.2
-93.2
-45.2

B.M. Elev. 4698.20
H & G. 50' Lt. 470+20

B.M. Elev. 4706.14
H & G. 50' Lt. 472+80

B.M. Elev. 4698.68
H & G. 50' Lt. 476+90

N.E. ¼ Sec. 29
T. 1 N., R. 52 W.

B.M. Elev. 4690.89
H & G. 50' Lt. 485+70

B.M. Elev. 4681.46
H & G. 50' Lt. 490+05

B.M. Elev. 4675.32
H & G. 50' Lt. 494+50

S.E. ¼ Sec. 29
T. 1 N., R. 52 W.

B.M. Elev. 4671.39
H & G. 50' Lt. 498+90

PROFILE
NOTE BOOK
NO. MAP 4003

TEST NO. 51 ASPHALT MAT
NO. 51A SIMILAR TO NO. 36A
NO. 51B A-2-6(1)
L.L.=38
P.I.=20
%200=35
R=34

TEST NO. 52 ASPHALT MAT
NO. 52A SIMILAR TO NO. 36A
NO. 52B A-7-6(12)
SIMILAR TO NO. 46B
R=20

TEST NO. 53 ASPHALT MAT
NO. 53A SIMILAR TO NO. 36A
NO. 53B A-7-6(12)
SIMILAR TO NO. 46B
R=20

P.I. 4704.96

+1.15%

-1.50%

-0.40%

P.I. 4676.48

600' V.C.

800' V.C.
S.S.D.=650'

00.36
02.31
98.96
80.96
77.29
75.28

51 51A 51B
52 52A 52B
53 53A 53B

4710
4700
4690
4680
4670

6,243
2,647
3,970
1.50
2,552
4,558
108
4,177
6,265

331 CU. YDS. EXCESS
EXCAVATION TO BE WASTED
ON FILL SLOPES, STA. 467+
TO STA. 470+

4"
5"

EMBANK. FACTOR
UNCL. EXCAV.
EMBANK.
EMB. X FACTOR
HAUL - YD. MI.
EXCESS
Subbase

PLATE 1 - PLAN - PROFILE

MADE AND PRINTED IN U.S.A.
CHARLES BRUNING COMPANY

STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS STATE OF COLORADO
D O H FORM NO. 134
JULY 1966

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	S0063(2)	15	

AS CONSTRUCTED
REVISED DATE 8-13-71

PLAN — SURVEYED / DRAWN / TRACED / NOTE BOOK / GRADES CHECKED / ALIGNMENT CHECKED / BY OFFICE ENGR. CHECKED / DATE — NO. 31303 / NO. 31304 / 31305

PROFILE — DRAWN / TRACED / NOTE BOOK / GRADES CHECKED / ALIGNMENT CHECKED / BY OFFICE ENGR. CHECKED / DATE — NO. 02400

S.W. ¼ Sec. 28 T.1N., R.52W.

N.W. ¼ Sec. 33 T.1N., R.52W.

S.E. ¼ Sec. 29 T.1N., R.52W.

N.E. ¼ Sec. 32 T.1N., R.52W.

P.O.T. 500+00.0

513+05 Road Approach (Res.) Lt.

518+95 Road Approach (Field) Lt.

518+ Identification Sign, Lt. (State Forces)

518+99 ~ 521+ Approach to Project

Mountain Dell

Mail Box

Steel Bldg. (Quonset)

Ft. Ho

18"x28" CMP

TEST NO.54

TEST NO.55

TEST NO.56

S.0°23'E.

S.0°39'30"E.

F.W. Elect. Co.

Sec. Line

513+05 Road Approach (Field) Rt.

518+95 Road Approach (Field) Rt.

18"x30" CMP

Ft. Shed

Ft. Ho

Obl. 18"x28" CMP

STA. 518+99.0 END S0063(2)

P.I. 518+99.0

Δ = 0°16'30" Lt.

5°-0"-21-E
3340.1' Horiz.
L=38.6' M=19.3'
Clear Away=25'

B.M. Elev. 4668.97 H&G. 50' Lt. 503+25

B.M. Elev. 4667.82 H&G. 50' Lt. 507+65

B.M. Elev. 4664.01 H&G. 50' Lt. 512+10

B.M. Elev. 4655.21 H&G. 50' Lt. 516+50

B.M. Elev. 4652.92 H&G. 50' Lt. 520+75

B.M. Elev. 4665.38 H&G. 50' Lt. 525+10

B.M. Elev. 4672.03 H&G. 50' Lt. 530+10

TEST NO.54 ASPHALT MAT
NO.54A SIMILAR TO NO.36A
NO.54B A-7-6(12)
SIMILAR TO NO.46B
R=20

TEST NO.55 ASPHALT MAT
NO.55A SIMILAR TO NO.36A
NO.55B A-7-6(12)
SIMILAR TO NO.46B
R=20

TEST NO.56 ASPHALT MAT
NO.56A SIMILAR TO NO.36A
NO.56B A-2-4(0)
L.L.=26
P.I.=9
%200=34
R=34

7.68
P.I. 467+66
72.86
71.25
68.84
600'V.C.
S.S.D.=1300'
-0.40%
54
54A
54B
55
55A
55B
-0.94%
500'V.C.
59.44
59.95
62.14
P.I. 465+07.09
+2.62%
56
56A
56B

4680
4670
4660
4650

300 305 310 313 320 325 330

EMBANK. FACTOR
UNCL. EXCAV.
EMBANK.
EMB. X FACTOR
HAUL — YD. MI.

EXCESS

Subbase

604 1.50 148

5"

PLATE 1—PLAN—PROFILE

MADE AND PRINTED IN U.S.A.
CHARLES BRUNING COMPANY