

FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	373-G(I)	1	

COLORADO STATE HIGHWAY DEPARTMENT PLAN AND PROFILE OF PROPOSED FED. AID SECONDARY PROJ. NO. F.A.S. 373-G (I) STATE HIGHWAY NO. 74 JEFFERSON COUNTY

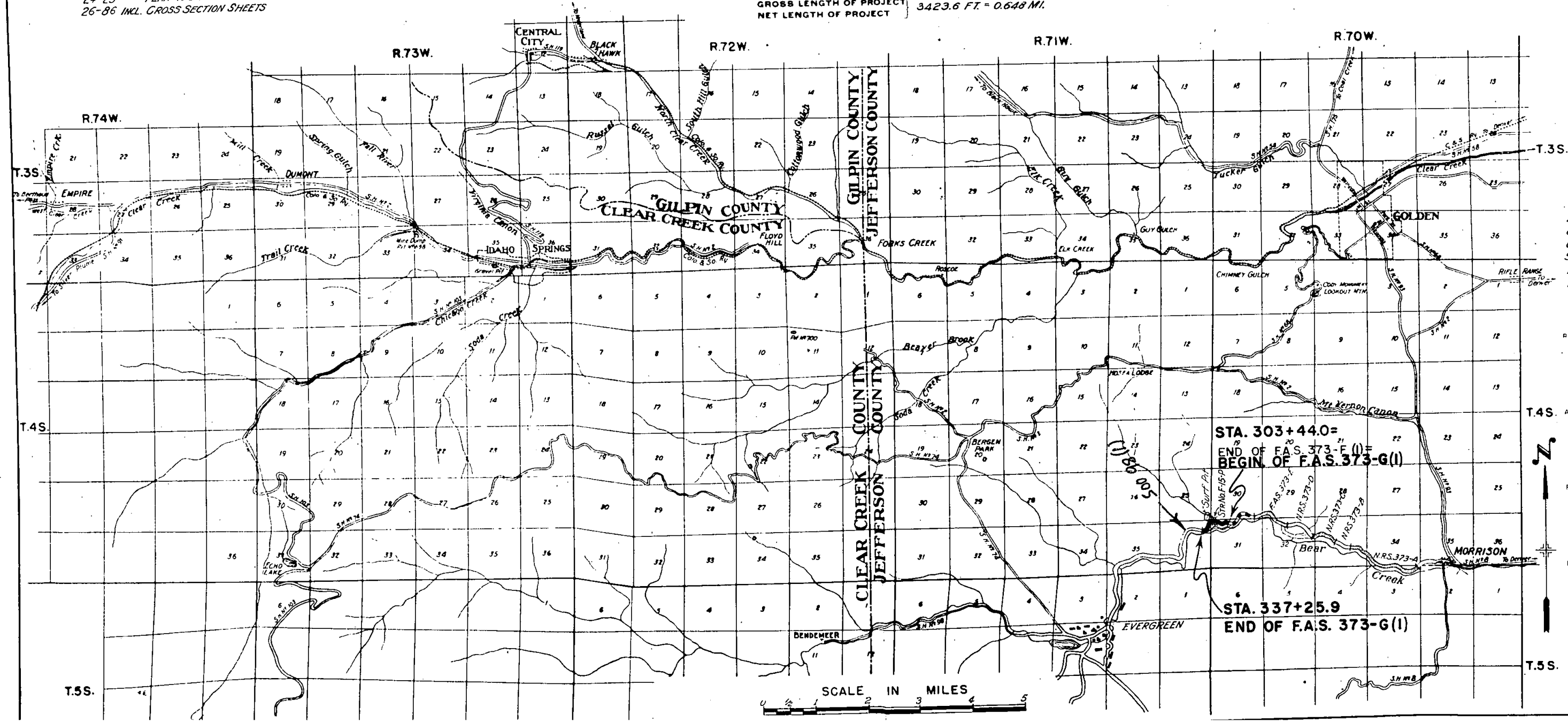
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SCALES ON ORIGINAL TRACINGS
 ON PLAN 1 IN. = 100 FT.
 ON PROFILE 1 IN. = 100 FT. HORIZONTAL
 1 IN. = 10 FT. VERTICAL
 GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD
 GROSS LENGTH OF PROJECT 3423.6 FT. = 0.648 MI.
 NET LENGTH OF PROJECT

CONVENTIONAL SIGNS

- CENTER LINE
- RIGHT OF WAY LINES
- TOWNSHIP OR RANGE LINES
- SECTION LINES
- ONE QUARTER SECTION LINES
- PRESENT ROAD
- BARBED WIRE FENCE
- GUARD FENCE
- TELEPHONE LINES



NOTE
 It is recommended that bidders on this project go over the plan details with one of the following field representatives of this department:
 E.E. Montgomery, Div. Eng. Denver
 F.W. Miller, Res. Eng. Denver

RECOMMENDED FOR APPROVAL

ASSISTANT ENGINEER
 DATE 4-16-40

T.4S. APPROVED

STATE HIGHWAY ENGINEER
 DATE

RECOMMENDED FOR APPROVAL

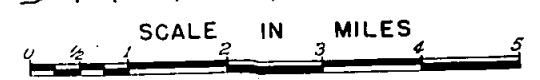
DISTRICT ENGINEER
 PUBLIC ROADS ADMINISTRATION
 FEDERAL WORKS AGENCY

RECOMMENDED FOR APPROVAL

CHIEF, WESTERN REGION
 PUBLIC ROADS ADMINISTRATION
 FEDERAL WORKS AGENCY

APPROVED

COMMISSIONER
 PUBLIC ROADS ADMINISTRATION
 FEDERAL WORKS AGENCY



LIST OF STRUCTURES

LOCATION	DESCRIPTION	REMOVE STRUCT.	EXCAV.			STRUCTURAL EXCAVATION			GRAVEL OR CR. ROCK SURF.	CONCRETE			REINFE. STEEL	CEMENT RUBBLE MASONRY	CORRUGATED METAL CULVERT PIPE			30 TO 40 LB. STEEL RAILS	STRUCT. STEEL	MISCELLANEOUS
		NO.	UNCL.	EMB.	Ø	CU. YD.	CU. YD.	CU. YD.	TONS	CL. "A"	CL. "B"	LB.	CU. YD.	CU. YD.	24"	24"	24"	LB.	LB.	
303+44	Project Marker																			1 Project Marker
304+	Remove Conc. Bridge Chan. Improv. Lt.					1000														Remove Conc. Bridge
305+95	C.M.P. Cross Culvert & Inlet Ditch					20	40						2.05		60					
316+	Move Shed from R.O.W. on Lt.																			Move Shed
308+95	Special 6'x7'-3"x74" Conc. Box Culvert and Channel Improvement					100	80			128		12,620						1200	610	
311+45 to 312+70A	Cement Rubble Masonry Retaining Wall Lt.						160						145.0							
312+22	C.M.P. Cross Culvert (Intercept Headwall) & Inlet Ditch					15	25						230		38					
313+75	Road Approach Lt.					15	6100			120										
314+88	C.M.P. Cross Culvert (Intercept Headwall) & Inlet Ditch					10	45						230		150					
312+	Remove Telephone Line from R.O.W.																			
317+00	Remove and Reset Water Tank Lt.																			Rem. & Reset Water Tank
320+60	C.M.P. Cross Culv. & Inlet Ditch					10	30						205		130					
326+90	C.M.P. Cross Culv. (Intercept Headwall) & Inlet Ditch					10	45						230		74					
327+40	Cave in Mine Tunnel																			Cave in Tunnel
327+86.6 to 329+70	Bridge																			
330+70	Road Approach Rt.					10	1000			10										
334+65	C.M.P. Cross Culv. & Inlet Ditch					10	45						205		84					
323±	Remove Telephone Line from R.O.W.																			
337+25.9	Approach to Project					36	209			40										
334+50	Road Approach on Rt.					150	900			10										
336+50	Road Approach on Lt.					10	20						205		54					
336+75	C.M.P. Cross Culv. & Inlet Ditch																			
TOTALS						1335	490			190	128	12,620	160.1		590			1200	610	

♦ Structural Excavation is estimated to be 10% Common and 90% Rock, each of which is estimated to be 90% Dry and 10% Wet.
* Included for payment in profile quantities.

FENCING REQUIREMENTS

STATION TO STATION	SIDE	BUILD B.W. FENCE	B. W. GATES
		LIN. FEET	EA.
303+44 to 330+75	R	2800	1
330+65	R		
TOTALS		2800	1

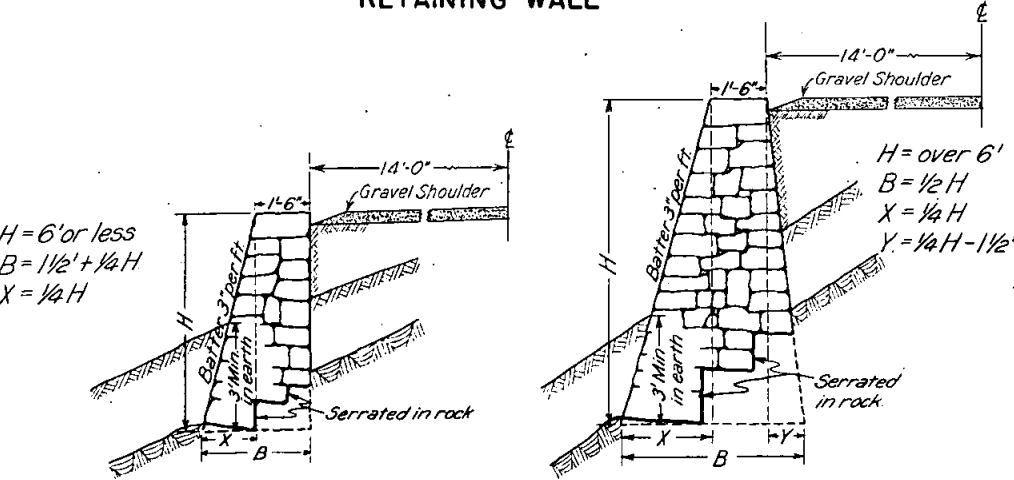
R.O.W. MARKERS

STATION	SIDE	NO
306+18	R	1
306+91	R	1
309+15	R	1
309+85	R	1
319+69	L	1
320+43.6	L	1
324+94	L	1
325+61	R	1
326+22	L	1
329+60	R	1
330+75	R	1
331+74	L	1
331+94	L&R	2
337+25.9	L&R	2
TOTAL		16

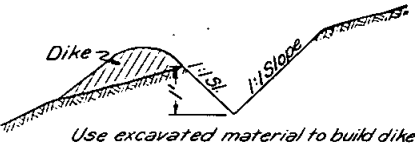
GUARD FENCE & TIMBER GUARD POSTS

STATION TO STATION	SIDE	GUARD FENCE	GUARD POSTS	
		LIN. FT.	SPACING	NO.
304+50 - 312+70A	L	824		
308+74 - 309+30	R	56		
313+10 - 313+50	L		40'	2
314+00 - 317+12	L	312		
317+42 - 318+02	L		30'	3
319+60 - 320+96	L	136		
321+26 - 324+76	L		50'	8
326+22 - 327+33	L	111		
329+80.5 - 330+43.5	R	63		
329+80.5 - 330+43.5	L	63		
330+75 - 331+05	L		30'	2
331+35 - 336+20	L	520		
TOTALS		2085		15

CEMENT RUBBLE MASONRY RETAINING WALL



DETAIL OF INTERCEPTING DITCHES



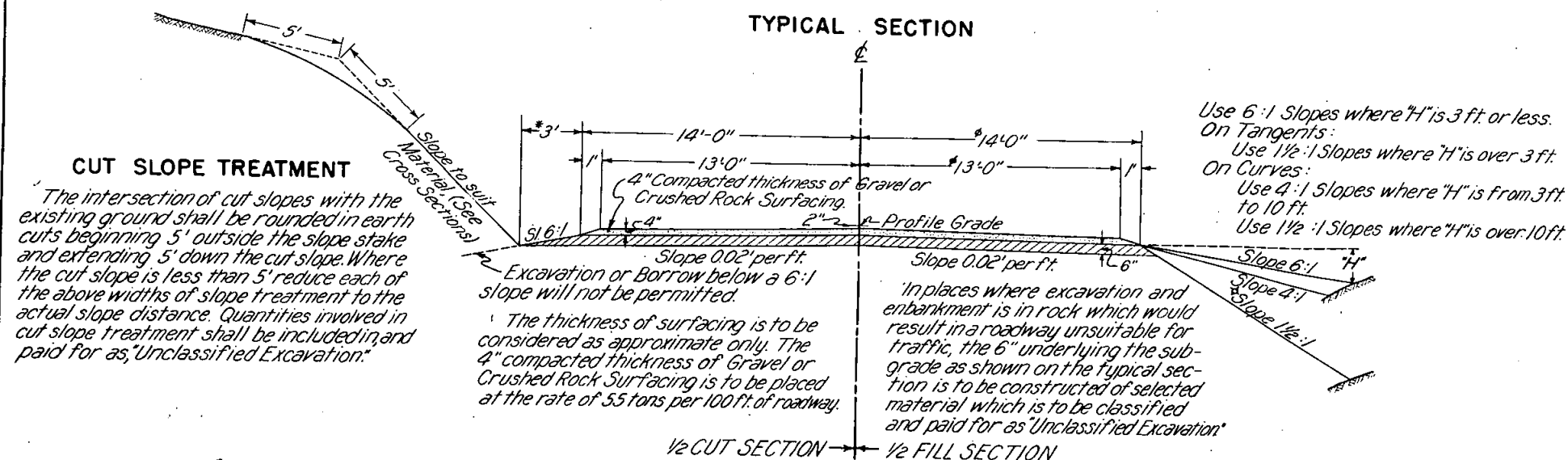
NOTE: The tops of cut slopes shall be protected by intercepting ditches at locations considered necessary by the Engineer.
It is estimated that 500 cu.yds. of excavation are required for this operation.
This work will be classified and paid for as "Unclassified Excavation."

NOTE: These sections are to be used at the Roadway Shoulder only. Where footing for wall is in earth the bottom of the wall shall be a minimum of 3 ft. below the natural ground at the outside face of the wall. Where rock is encountered which will afford a suitable foundation for the wall, the rock surface shall be serrated as directed by the Engineer in order to obtain the best possible footing. Weep holes will be left in the masonry as directed by the Engineer. Estimated quantities involved are shown in the "List of Structures."

TYPICAL CROSS SECTION OF IMPROVEMENT AND SUMMARY OF QUANTITIES

DIST. NO.	STATE	PROJ. NO.	NO.	SHEETS
3	COLO.	373-G(1)	2	

Revised 5-27-40-JWS - Changed Quantities for Items No. 13c, 14a, 14b, 14c, 18a, 26a, 49, 53c, and 74. Added Items No. 11a & 11b. Changed Appr. Quant. in Surf. Plan.



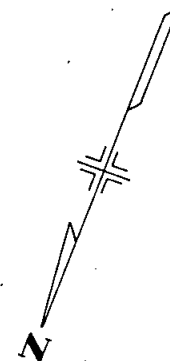
SUMMARY OF APPROXIMATE QUANTITIES

NO.	ITEM	UNIT	ROADWAY	BRIDGE STA. 327+	TOTALS
10a	Clearing and Grubbing the Entire Project	Lump Sum			
11a	Removal of Bridge, Sta. 304+				
11c	Removing & Resetting Water Tank, Sta. 317				
11d	Cave in Mine Tunnel Sta. 327+				
13c	Unclassified Excavation	Cu. Yd.	(71,000)		(71,000)
14a	Dry Rock Excavation (Structural)	"	400	115	515
14b	Dry Common Excavation (Structural)	"	45	460	505
14c	Wet Rock Excavation (Structural)	"	45	15	60
14d	Wet Common Excavation (Structural)	"	5	305	310
18a	Station Yard Overhaul	Sta. Yd.	(130,000)		(130,000)
18b	Yard Mile Overhaul	Yd. Mi.	500		500
26a	Gravel or Crushed Rock Surfacing	Ton	(2250)		(2250)
42a	Untreated Bridge Timber	Mft. Dm.		0.6	0.6
46a	Class "A" Concrete	Cu. Yd.	128	696	824
46r	Class "A" Concrete (Handrails)	"		21	21
47	Reinforcing Steel	Lb.	12,700	97,400	110,100
48	Structural Steel	Lb.	700	255,900	256,600
49	Cement Rubble Masonry	Cu. Yd.	161		161
53c	24" Corrugated Metal Culvert Pipe	Lin. Ft.	590		590
74	Wire Cable Guard Fence	"	(2085)		(2085)
74x	Timber Guard Posts	Ea.	15		15
76c	Barbed Wire Fence with Metal Posts	Lin. Ft.	2800		2800
76g	Barbed Wire Gates	Ea.	1		1
81a	Project Markers	"	1		1
81b	Right of Way Markers	"	16		16
89a	Drain Pipe (Concrete Floor)	"		6	6
110	30 Lb. to 40 Lb. Steel Rails	Lin. Ft.	1200		1200
11e	Moving Shed from Right of Way, Sta. 316+	Lump Sum			
	FORCE ACCOUNT ITEMS				
	Removing Telephone Line, Sta. 312+ & 323+ (Work to be done by Telephone Co. Forces)	Lump Sum			

MATERIAL TO BE PLACED	SOURCE	QUANTITY		OVERHAUL
		AVAIL. TONS	USED TONS	
303+44 to 327+86.6	Pit located in the S.E. 1/4 Sec. 25, T.4 S., R. 71 W., Bridge and Curve Widening Road Approaches	Ample	1356	Free Haul
329+78 to 337+25.9			412	" "
			243	" "
			(190)	" "
	TOTALS		(2201)	None

NOTE: Alignment and Grades as shown hereon are subject to modification during construction after approval by the Denver Office.

Fencing, Guard Fence, Guard Posts and Right of Way Markers required are tabulated on Sheet No. 3.
Poles encroaching on R.O.W. are to be moved by the owners.



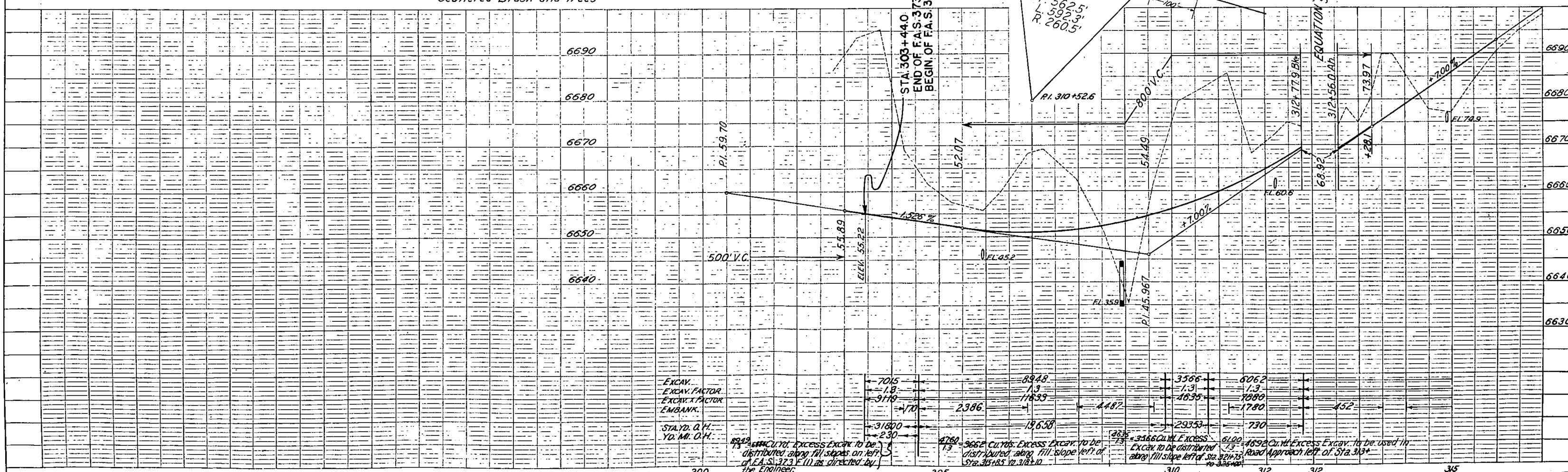
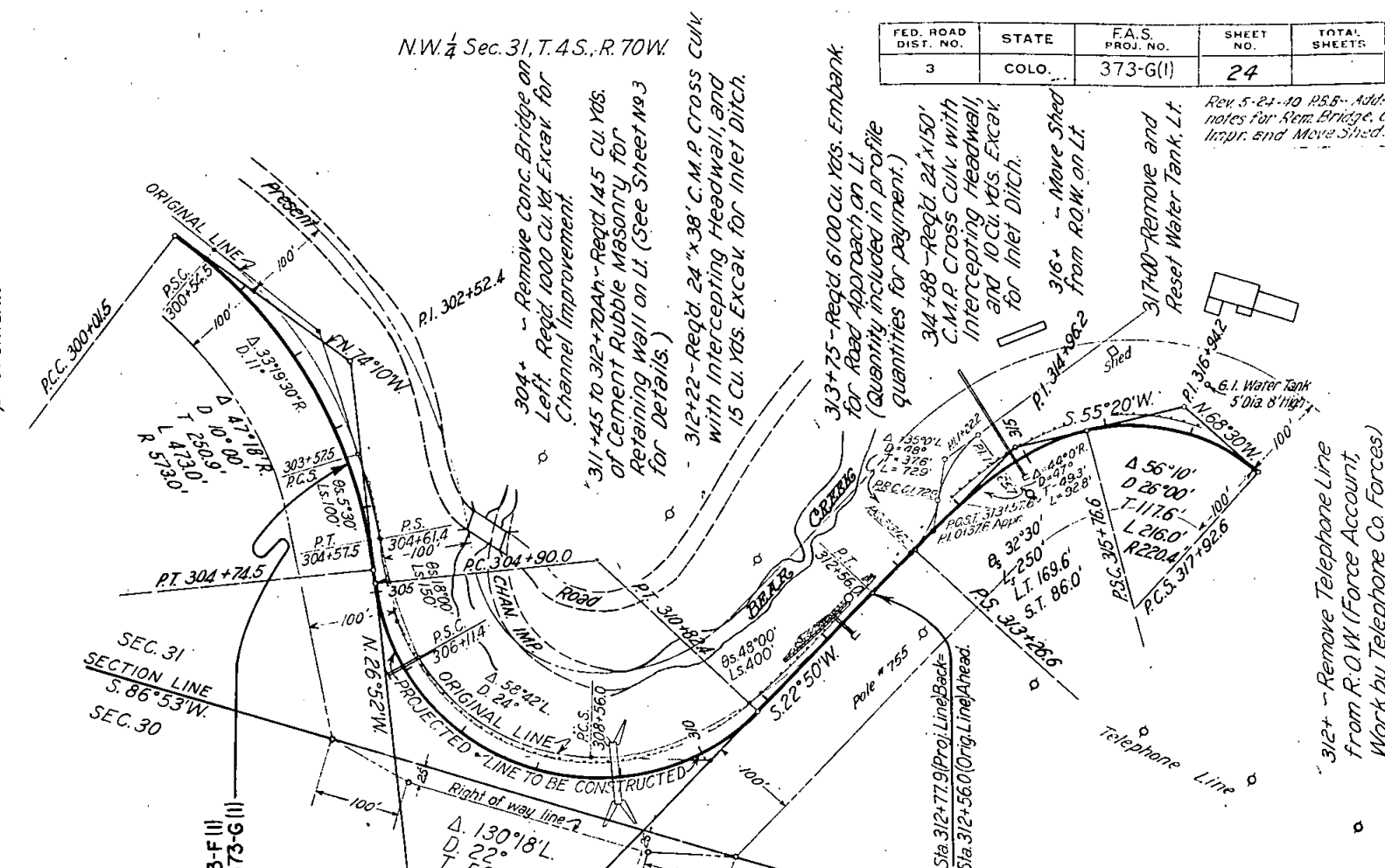
303+44.0 - Regd. Project Marker.
305+95 - Regd. 24"x60" C.M.P. Cross Culvert and 20 Cu Yds. Excavation for Inlet Ditch.
308+95 - Regd. Special 6'x7'-3"x74" Concrete Box Culvert (Details on Sheet Nos. 13 & 14) also 100 Cu Yds. Excavation for Channel Improvement.

CLEARING AND GRUBBING
Sta. 303+44.0 to 337+25.9 -
Scattered Brush and Trees

N.W. 1/4 Sec. 31, T. 4 S., R. 70 W.

FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	373-G(1)	24	

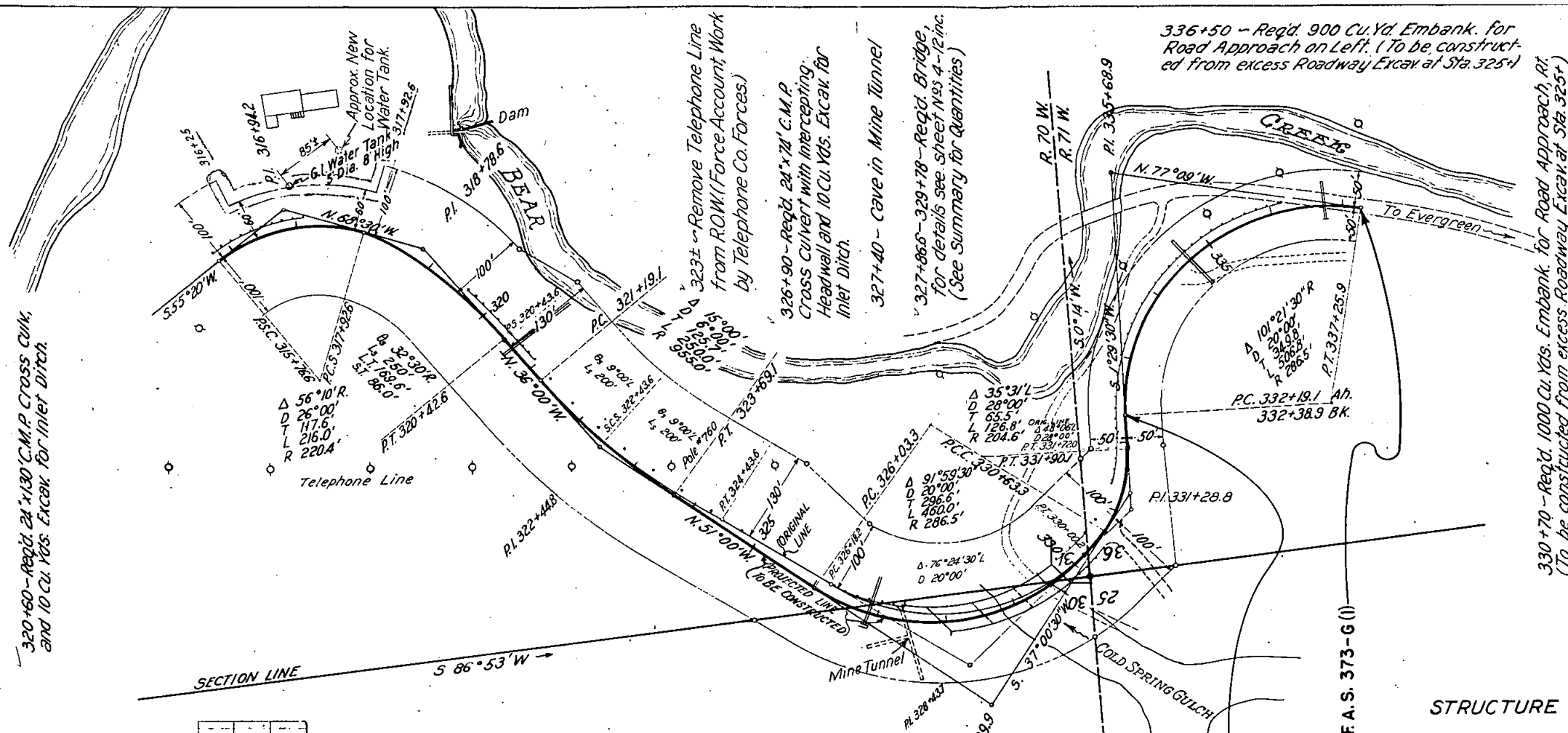
Rev. 5-24-10 R.S.B. - Added notes for Rem. Bridge, Chan. Impr. and Move Shed.



FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	373 G(1)	25	

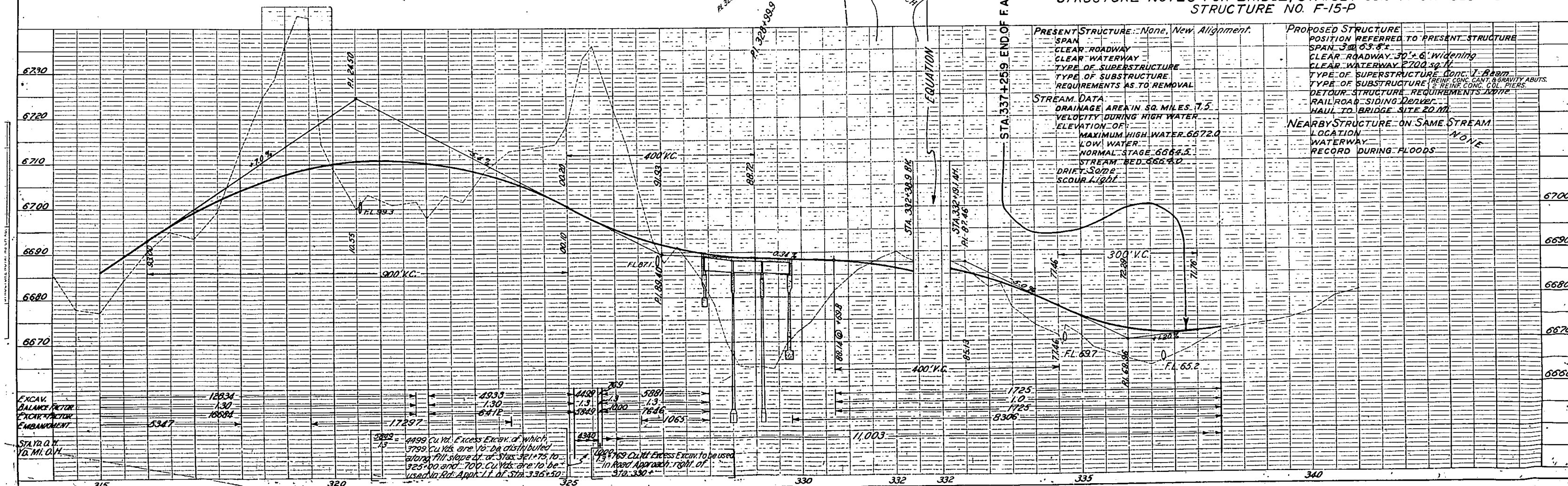
Rev. 5-24-40 R.B.S. Extend C.M.P. Add. Rd. Appr., Reduce length Gd. Fence & Add. C.M.P.
Rev. 9-10-41 - E.A.R. - Right of Way

334+65 - Reg'd. 24"x84" C.M.P. Cross Culvert, and 10 Cu. Yds. for Inlet Ditch. Pipe to extend under Appr. on Right.
334+50 - Reg'd. 50 Cu. Yd. Excav. for Road Approach on Right.
337+25.9 - Reg'd. 35 Cu. Yds. Excav. and 209 Cu. Yds. Embank. for Approach to project. (Quantity included in profile quantities for payment.)
336+75 - Reg'd. 24"x54" C.M.P. Cross Culv. and 10 Cu. Yd. Excav. for Inlet Ditch



STRUCTURE NOTES FOR BRIDGE, STA. 327+86.6 TO STA. 329+78.0 STRUCTURE NO. F-15-P

PRESENT STRUCTURE: None, New Alignment.	PROPOSED STRUCTURE: POSITION REFERRED TO PRESENT STRUCTURE
SPAN: CLEAR ROADWAY	SPAN: 30' 6" 8"
CLEAR WATERWAY	CLEAR ROADWAY: 30' 6" widening
TYPE OF SUPERSTRUCTURE	CLEAR WATERWAY: 2700 sq. ft.
REQUIREMENTS AS TO REMOVAL	TYPE OF SUPERSTRUCTURE: CONC. T-Beam
STREAM DATA:	TYPE OF SUBSTRUCTURE: 2 REIN. CONC. COL. PIERS
DRAINAGE AREA IN SQ. MILES: 7.5	DETOUR STRUCTURE REQUIREMENTS: NONE
VELOCITY DURING HIGH WATER	RAILROAD SIDING: Denver
ELEVATION OF:	HAUL TO BRIDGE SITE 20 MI.
MAXIMUM HIGH WATER: 6672.0	NEARBY STRUCTURE ON SAME STREAM
LOW WATER	LOCATION: NONE
NORMAL STAGE: 6664.5	WATERWAY
STREAM BED: 6654.0	RECORD DURING FLOODS
DRIFT: Some	
SCOUR: light	



EXCAV. BALANCE FACTOR
EXCAV. FACTOR
EMBANKMENT

STA. 320+50
VD. MI. 0.00

315

320

325

330

332

332

335

340