FED. ROAD DIST. NO.	STATE	A. W. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	6002	1	

COLORADO
STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED
A.W. PROJECT NO. 6002
STATE HIGHWAY NO. 2
GRAND COUNTY

INDEX OF SHEETS

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" 2 Typical Cross Section
" 3 Summary of Quantities
" 4 to 5 Tabulation of Structures
" 6 to 7 Details of Bridge Sta. 261+
" 8 " " " Sta. 441+
" 9 Special Concrete Box Culvert
" 10a Standard Reinforced Concrete Culvert Pipe M-112-C
" 10b " " " " " M-113-A
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" 12 " Wire Cable Guard Fence M-20-A
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" 16 " Typical Side Approach Roads / Roadway Construction Traffic Signs M-2B
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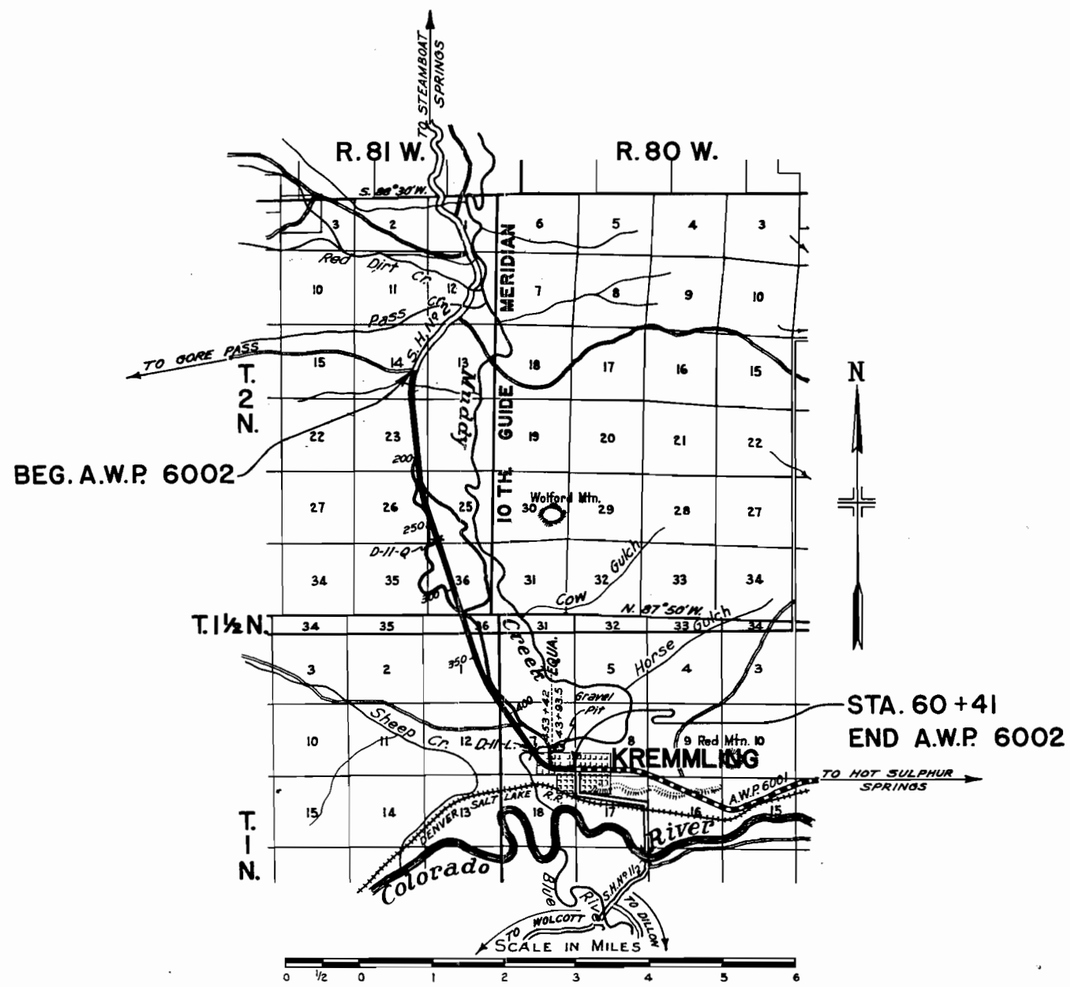
SCALES OF ORIGINAL TRACINGS

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
NET LENGTH OF PROJECT } 29489.5 FEET = 5.585 MILES



CONVENTIONAL SIGNS

Center Line of Survey
Right of Way Lines
Township or Range Lines
Section Lines
One-Quarter Section Lines
Railroad Tracks
Barbed Wire Fence
Pole Lines

NOTE

These plans amended to include portions of the Highway Crossing U. S. Land, which were omited in the Original Request.

NOTE

It is recommended that the bidders on this Project go over the plan details with one of the following field representatives of this department:

H. L. Jenness Div. Engr. Glenwood Springs
R. J. Greisiger Res. Engr. Hot Sulphur Sprgs.

RECOMMENDED FOR APPROVAL 11/17/36
J. E. Wolcott
ASSISTANT ENGINEER
APPROVED
Chas. D. Vail
STATE HIGHWAY ENGINEER

DIST. NO.	STATE	PROJ. NO.	SC.	SHEETS
4	COLO.	6002	2	

TYPICAL CROSS SECTION OF IMPROVEMENT

GENERAL NOTES

This Project is to be constructed in conformity with the Standard Specifications of the Colorado State Highway Department, adopted August 1, 1935.

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

All roadway excavation required to construct the project is to be obtained as indicated on the plans. Quantities involved beyond the limits of ditch as shown on the Typical Section, either noted on Profile as "Borrow" or on Tabulation of Structures as "Excavation" and "Embankment" are to be classified and paid for as "Unclassified Excavation."

These quantities are to be staked as part of the original excavation at locations indicated on the plans. Slope stakes, beyond the limits of the Typical Section as shown, are subject to change by the Engineer to fit embankment requirements actually encountered in construction.

All poles encroaching on the construction are to be moved by the owners.

Except as noted on plans, overhaul will be paid for as measured along center line of the project.

All side approach roads to the project shall be gravel surfaced with a 4" thickness of "Gravel or Crushed Rock Surfacing" extending approximately 30 feet from edge of highway. Estimated tonnage of surfacing material required in this operation is shown in "List of Structures."

All curves are to be superelevated and widened as provided by the Standard Superelevation Sheet.

Clearing and Grubbing shall be of variable widths and be held to the minimum required for the construction of the road and channel changes and to accommodate visibility. Ordinarily the clearing shall not extend more than 8 feet beyond the toes of fills or the tops of cut banks.

At all places on the project where the new work lies along the present travelled road, the Contractor shall at his own expense, prosecute construction in such a manner that traffic may readily pass over the road. Also, the Contractor shall at his own expense construct and maintain in safe condition all temporary approaches to and crossings of intersecting roads.

All pipe cross culverts are to be provided with one headwall on the inlet end unless otherwise noted. Side drains do not require headwalls unless indicated on plans.

CUT SLOPE TREATMENT IN EARTH CUTS

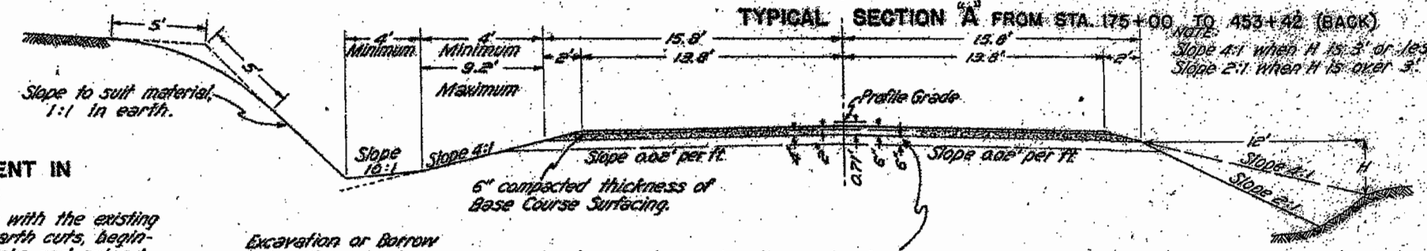
The intersection of cut slopes with the existing ground line shall be rounded in earth cuts, beginning 5 feet back of the slope stake and extending 5 feet down the cut slope.

Where the cut slope length is less than 5 feet, reduce both of the above lengths of slope treatment to the actual slope distance. Excavation quantities involved in rounded slope shall not be included in Unclassified Excavation.

R.O.W. MARKERS

STATION	SIDE	NO.
183+62	R	1
183+74	L	1
210+14	R	1
210+26	L	1
236+44	L	1
240+19	R	1
264+89	R	1
265+20	L	1
293+15	R	1
293+51	L	1
321+51	R	1
321+89	L	1
331+30	R	1
331+67	L	1
357+95	R	1
358+43	L	1
388+69	R	1
389+34	L	1
420+60	R	1
421+46	L	1
423+50	R	2
427+50	R	2
452+88	R & L	2
TOTAL		26

TYPICAL SECTION "A" FROM STA. 175+00 TO 453+42 (BACK)



Note: Slope 4:1 when H is 3' or less. Slope 2:1 when H is over 3'.

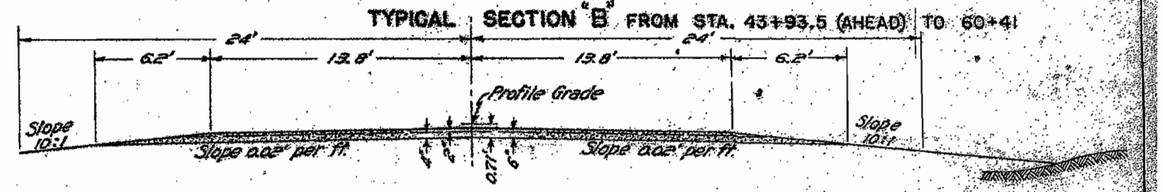
Excavation or Borrow below the 4:1 slope will not be permitted

In places where excavation and embankment are in rock which would result in a roadway unsuitable for traffic, the 6" underlying the subgrade as shown on the Typical Section is to be constructed of Selected Material which is to be classified and paid for as Unclassified Excavation.

The thickness of the Gravel or Crushed Rock Surfacing is to be considered approximate only. Surfacing is to be placed in two courses at the rates indicated below:

4" bottom course surfacing 62 tons per 100' of roadway.
2" upper course surfacing 28 tons per 100' of roadway.

TYPICAL SECTION "B" FROM STA. 43+93.5 (AHEAD) TO 60+41



Surfacing for Typical Section "B" is to be placed in two courses at the rates indicated below:

4" bottom course surfacing 73 tons per 100' of roadway.
2" upper " " 30 " " " " " "

SUMMARY OF QUANTITIES

NO.	ITEM	UNIT	ROADWAY		BRIDGE STA. 441+		PROJECT TOTALS
10a	Clearing and Grubbing Entire Project	Lump Sum	•				•
11b	Removal of 4 Structures	" "	•				•
11c	Removing and Resetting mail box	Each	1				1
12a	" Fence	Lin. Ft.	2000				2,000
13c	Unclassified Excavation	Cu. Yd.	201,500		3,500		205,000
13d	Cut Slope Treatment	Mile	3.5				3.5
14a	Dry Rock Excavation (Structural)	Cu. Yd.	130				130
14b	" Common " "	" "	1,120		200		1,320
14c	Wet Rock " "	" "	50				50
14d	" Common " "	" "	370		10		380
18a	Station Yard Overhaul	Sta. Yd.	227,000				227,000
18b	Yard Mile "	Yd. Mi.	500				500
26a	Gravel or Crushed Rock Surfacing	Ton	27,700				27,700
42a	Untreated Bridge Timber	M.Ft. b.m.	0.8		2.2		3.0
42b	Treated " "	" " "	15.6		56.7		72.3
43	Asphalt Plank Wearing Surface	Sq. Ft.	551		3,335		3,886
46a	Class "A" Concrete	Cu. Yd.	297				297
46b	" "B" "	" "	109				109
47	Reinforcing Steel	Lb.	23,600				23,600
48	Structural "	"	2,700				2,700
*53b	18" Corrugated Metal Culvert Pipe	Lin. Ft.	854				854
*53c	24" " " " "	" "	1,278				1,278
*53d	30" " " " "	" "	114				114
*53e	36" " " " "	" "	508				508
*53g	48" " " " "	" "	300				300
*53i	60" " " " "	" "	498				498
60a	Treated Timber Piling	" "			3,280		3,280
60c	Piling Cut-off Treated	" "			10		10
65	Dry Rubble Slope Paving (1'-6" thick)	Sq. Yd.			180		180
74	Wire Cable Guard Fence	Lin. Ft.	5,344				5,344
76a	Barbed Wire Fence with Treated Wooden Posts	" "	54,300				54,300
76g	Barbed Wire Gates	Each	20				20
81a	Project Marker	"	1				1
81b	Right of Way Markers	"	26				26
89b	Drain Pipe (Timber Floor)(3" Galv. Pipe 2'-4")	"			10		10
48x	Structural Steel Piles	Lb.	38,400				38,400
	FORCE ACCOUNT						
	Moving Telephone poles, Sta. 177+.	Lump Sum	•				•
	Moving Telephone line, Sta. 300+ (Work by Telephone Co. forces.)	Lump Sum	•				•
	ALTERNATE BIDS TO BE RECEIVED FOR REINFORCED CONCRETE CULVERT PIPE						
	* As an alternate for Items No. 53b, 53c, 53d, 53e, 53g, & 53i The following items providing for reinforced concrete culvert pipe shall be bid upon:						
51b	18" Reinforced Concrete Culvert Pipe	Lin. Ft.	854				
51c	24" " " " "	" "	1,278				
51d	30" " " " "	" "	114				
51e	36" " " " "	" "	508				
51g	48" " " " "	" "	300				
51i	60" " " " "	" "	498				

DIST. NO.	STATE	PROJ. NO.	NO.
3	COLO.	6002	4

FENCING REQUIREMENTS

STATION	SIDE	REMOVE FENCE LIN. FT.	BUILD B.W. FENCE LIN. FT.	BUILD B.W. GATES NO.
242+20	X	210		
250+60	X	165		
257+20	X	365		
278+80	X	100		
405+60	X	400		
416+50	X	100		
425+50	X	345		
444+00	X	120		
446+50	X	190		
175+00 to 441+50	L		26,690	
442+50 to 447+30	L		520	
175+00 to 441+50	R		26,690	
442+50 to 445+80	R		370	
177+25	L.&R.			2
219+15	L.&R.			2
263+00	L.&R.			2
278+65	L.&R.			2
314+25	L.&R.			2
337+50	L.&R.			2
382+00	L.&R.			2
402+50	R.			1
423+00	R.			1
436+50	L.&R.			2
445+50	L.&R.			2
TOTALS		1995	54,270	20

WIRE CABLE GUARD FENCE

STATION	LINEAR FEET LEFT SIDE	LINEAR FEET RIGHT SIDE
233+00 to 237+08	408	
247+25 to 251+65		440
247+50 to 251+58	408	
260+56 to 261+03	47	47
261+28 to 261+75	47	47
291+50 to 297+02	552	
291+50 to 296+86		536
305+40 to 313+96	856	856
320+60 to 325+16	456	456
441+11 to 441+58	47	47
442+79 to 443+26	47	47
TOTAL	5,344	

TABULATION OF STRUCTURES

STATION	DESCRIPTION	REMOVE STRUCT. NO.	EXCAVATION CU. YDS. EXCAV.	EXCAVATION CU. YDS. EMB.	STRUCTURAL EXCAV. CU. YDS. *				GRAVEL SURF. TONS	CONCRETE CU. YDS. CL. A	CONCRETE CU. YDS. CL. B	REINF. STEEL LBS.	CORR. METAL CULV. PIPE LINEAR FEET 18"	24"	30"	36"	48"	60"		MISCELLANEOUS
175+00	Project Marker & Approach to Project.			300					100											Project Marker.
177+18	Move telephone poles.		(FORCE ACCOUNT)																	
177+25	C.M.P. side drain & road approach, Rt.		@ 25		1				15				20							
	" " " " " " , Lt.		@ 25		1				15				20							
178+17	Move mail box.																			Move mail box.
179+22	C.M.P. cross culvert.				7						1.65			56						
	Remove C.M.P. cross culvert.	1																		
186+00	C.M.P. cross culvert & ditch improvement.		10		21						1.65			54						
	Remove C.M.P. cross culvert.	1																		
189+91	C.M.P. cross culvert.				4						1.65			54						
190+00	Remove C.M.P. cross culvert.	1																		
199+37	C.M.P. cross culvert (skew 75°) & inlet ditch.		50		8						3.00						92			
	Remove C.M.P. cross culvert.	1																		
205+00 to 210+00	Intercepting ditch, Rt.		60																	
215+00	C.M.P. cross culvert.				3						1.65			56						
217+30	" " " (skew 70°) & inlet ditch.		@ 100		23					6.75		241						80		
219+00 to 221+50	Intercepting ditch, Rt.		30																	
219+15	Road approach, Lt.			@ 100					50											
221+50	C.M.P. cross culvert & inlet ditch.		5		8						1.65			44						
221+50 to 226+00	Intercepting ditch, Rt.		54																	
226+50	C.M.P. cross culvert & inlet ditch.		5		17						1.65			52						
226+50 to 231+50	Intercepting ditch, Rt.		60																	
232+00	C.M.P. cross culvert & inlet ditch.		5		24						1.65			58						
234+06	" " " .				5						1.65			64						
235+55	" " " & diversion ditches.		@ 200		48						2.25				114					
237+00 to 246+00	Intercepting ditch, Rt.		108																	
246+50 to 248+00	" " , Lt.		18																	
248+42	Special 6'-7'×160' Concrete Box Culv. (skew 60°)				260					253.4		21,527								0.712 M.f.b.m. Unfr. Bridge Timber; 15.597 " " " Tr. " " 551 sq.ft. Asphalt Plank Wearing Surface; 2,660 Lbs. Struct. Steel; 38,360 " " " Piles.
	Channel change.		@ 200																	
259+00	C.M.P. cross culvert.				16						1.65			82						
261+05 to 261+25.5	Treated Timber Bridge, steel piles, 1 span @ 18'-8".				30					16.0		1,090								
263+00	C.M.P. side drain, Rt. & Road approaches, Rt. & Lt.			@ 60	1				30				20							
264+00	C.M.P. cross culvert (skew 67°) & inlet & outlet ditches.		25		18						1.65			48						
268+00	" " " , " " " " "		10		11						1.65			54						
271+00	" " " & inlet ditch.		10		11						1.10		44							
272+00 to 275+50	Intercepting ditch, Rt.		42																	
275+50	C.M.P. cross culvert & inlet ditch.		10		9						1.10		40							
276+00 to 278+50	Intercepting ditch, Rt.		30																	
278+50	C.M.P. cross culvert & inlet ditch.		8		12						1.65			44						
278+65	Road approaches, Rt. & Lt.			@ 75					30											
279+00 to 281+50	Intercepting ditch, Rt.		30																	
281+65	C.M.P. cross culvert (skew 45°) Channel Impr'vmt		@ 30		47						3.00					84				
292+00 to 285+00	Intercepting Ditch, Rt.		36																	
285+00	C.M.P. cross culvert & outlet ditch		@ 20		8						1.65			48						
285+50 to 290+00	Intercepting ditch, Rt.		54																	
290+00	C.M.P. cross culvert & outlet ditch		@ 10		8						1.65			52						
294+00	" " " " channel improvement.		@ 30		64					6.75		241						90		
300+00	Move telephone line.		(FORCE ACCOUNT)																	
307+60	C.M.P. cross culvert (skew 67°)				88					6.75		241						182		
	Channel improvement.		@ 100																	
311+50	C.M.P. cross culv. (skew 60°) & Channel change.		@ 200		197					6.75		241						146		
322+50	" " " . & channel improvement.		@ 100		10						1.65			110						
335+50	" " " (skew 45°) & Inlet ditch.		5		9						1.65			76						
337+00 to 343+50	Intercepting ditch, Lt.		78																	
343+50	C.M.P. cross culvert & outlet ditch		5		18						3.00					44				
	Intercepting ditch, Lt.		@ 20																	
348+00	C.M.P. cross culvert & inlet & outlet ditches.		10		18						1.65			44						
353+50	" " " " " " " "		@ 50		22						3.00					44				
			5																	
358+00	" " " " Diversion ditch.		@ 50		8						1.65			44						
361+75	" " " (skew 77°) & outlet ditch.		@ 50		44						3.00						52			
365+00	" " " & inlet ditch.		5		11						1.65			46						
368+50	" " " " " " .		10		17						3.00					48				
368+50 to 371+00	Intercepting ditch, Lt.		30																	
371+00 to 373+00	" " " .		24																	
375+00	C.M.P. cross culvert & diversion ditches.		@ 30		12						3.00					30				
380+00	" " " " inlet & outlet ditches.		100		41						3.00						46			

(TABULATION CONTINUED ON SHEET NO. 5)

FED. ROAD DIST. NO.	STATE	A.W. PROJ. NO.	SHEET NO.
3	COLO.	6002	5

TABULATION OF STRUCTURES

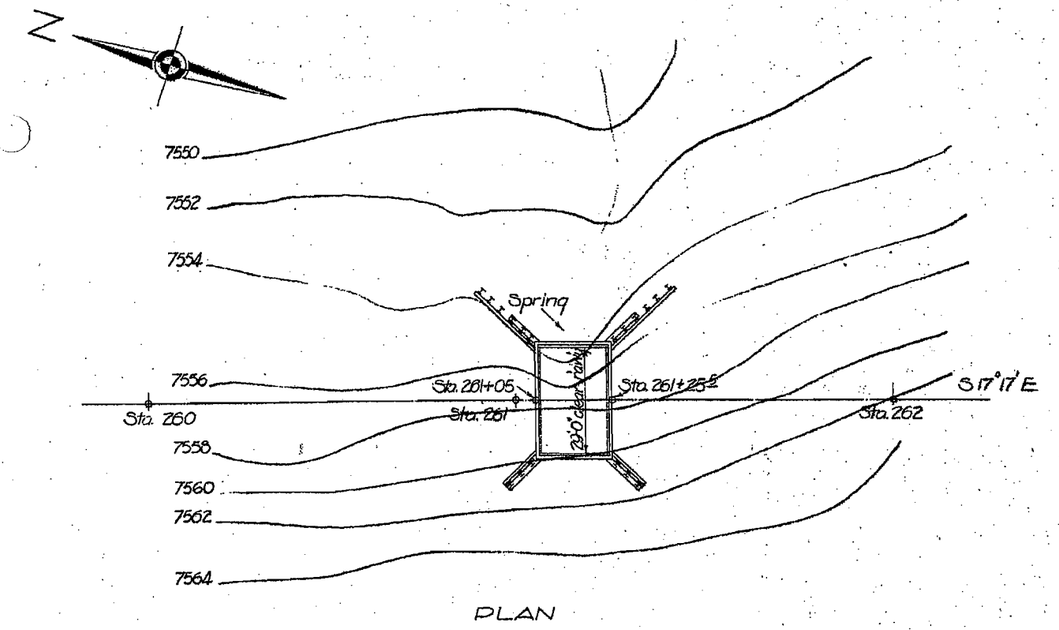
(TABULATION CONTINUED FROM SHEET NO. 4)

STATION	DESCRIPTION	REMOVE STRUCT. NO.	EXCAVATION CU. YDS. EXCAV.	EXCAVATION CU. YDS. EMB.	STRUCTURAL EXCAV. CU. YDS. *				GRAVEL SURF. TONS	CONCRETE CU. YDS. CL. A	CONCRETE CU. YDS. CL. B	REINF. STEEL LBS.	CORR. METAL CULV. PIPE LINEAR FEET 18"	24"	30"	36"	48"	60"			MISCELLANEOUS
380+00 to 384+00	Intercepting ditch, Lt.		48																		
385+00 to 388+00	" " " "		36																		
388+30	C.M.P. cross culv. (skew 60°) & inlet & outlet ditches.		50		50						5.00						62				
393+13	" " " " " " " " "		10		28						3.00					48					
396+00	" " " " " " " " "		200		41						3.00					48					
397+50 to 399+00	Intercepting ditch, Lt.		30																		
399+50	C.M.P. cross culvert & inlet & outlet ditches.		25		21						3.00 *					46					
402+50	Road approach, Rt.			50					50												
403+00	C.M.P. cross culvert & inlet & outlet ditches.		10		16						3.00					50					
405+50	" " " " " " " " "		10		6						1.65			50							
408+00 to 412+00	Intercepting ditch, Rt.		120																		
414+00	C.M.P. cross culvert.				8						1.65			44							
418+00	" " " & inlet & outlet ditches.		5		14						1.65			48							
422+50	" " " " " " " " "		5		15						1.65			50							
423+00	Road approach, Rt.			50					15												
431+00 to 434+00	Drain ditch, Lt.		50																		
432+50	C.M.P. cross culvert.				5						3.00					46					
436+50	Road approaches, Rt. & Lt.			100					30												
437+50 to 438+00	Drain ditches, Rt. & Lt.		50																		
439+50	C.M.P. cross culvert & outlet ditch.		470		15						5.00						48				
441+60 to 442+76.5	Treated Timber Bridge, 5 spans @ 29'. Channel change.		(Quantities in Summary)																		
445+50	C.M.P. side drain & road approach, Rt.		50		10				15				20								
	" " " " " " , Lt.		50		10				15				20								
448+20	" " " " " " , Rt.			25	5				15				20								
	" " " " " " , Lt.			25	5				15				20								
452+40	" " " , Lt. & road approaches, Rt. & Lt.			50	2				50				30								
45+85	C.M.P. cross culvert & inlet & outlet ditches.		10		20						1.10		60								
46+20	Road approaches, Rt. & Lt.			25					50												
46+55	C.M.P. cross culvert & inlet & outlet ditches.		10		20						1.10		60								
49+15	" " " " " " " " "		10		24						1.10		60								
49+50	Road approaches, Rt. & Lt.		25						50												
49+85	C.M.P. cross culvert & inlet & outlet ditches.		10		24						1.10		60								
52+45	" " " " " " " " "		10		24						1.10		60								
52+80	Road approaches, Rt. & Lt.			25					50												
53+15	C.M.P. cross culvert & inlet & outlet ditches.		10		22						1.10		60								
55+75	" " " " " " " " "		10		24						1.10		60								
56+10	Road approaches, Rt. & Lt.			25					50												
56+45	C.M.P. cross culvert & inlet & outlet ditches.		10		24						1.10		60								
59+05	" " " " " " " " "		10		22						1.10		60								
59+35	Road approaches, Rt. & Lt.			25					50												
59+65	C.M.P. cross culvert & inlet & outlet ditches.		10		20						1.10		60								
TOTALS		4	2,276	700	1,645				695	296.4	108.40	23,581	854	1,278	114	508	300	498			

* Included and shown in profile quantities for payment.

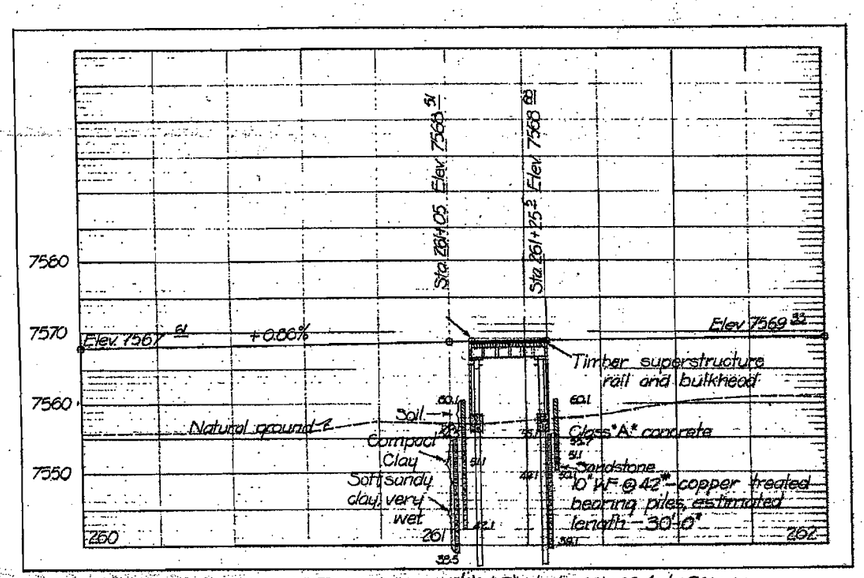
* Structural Excavation is estimated to be 90% common, and 10% rock, each of which is estimated to be 75% dry and 25% wet.

3	COLO.	6002	6	



PLAN

SUMMARY OF QUANTITIES. M.D. 11-26-36						
Item	Description	Units of	Superstructure	Abut. #1	Abut. #2	Total.
14b	Dry Common Excavation (Str.)	Cu. Yds.		15	15	30
42a	Untreated Bridge Timber	M Bd Ft	.360	.176	.176	.712
42b	Treated Bridge Timber	M Bd Ft	7.833	3.857	3.857	15.597
43	Asphalt Plank Wearing Surface	Sq. Ft.	551			551
46a	Class "A" Concrete	Cu. Yds.		8.0	8.0	16.0
47	Reinforcing Steel	Lbs.		545	545	1090
48	Structural Steel	Lbs.		1330	1330	2660
48a	Structural Steel (copper bearing) Piles	Lbs.		19,180	19,180	38,360



Test holes are 15' Lt. & Rt. at sta. 261+05 & sta. 261+25.

SECTION AT ℄ OF ROADWAY

All rivets to be ¾" ϕ. All field connections to be ¾" dardelet or turned bolts. For driving all piling, the steam hammer shall develop at each full blow an energy of not less than 15000 Ft. Lbs. for each full stroke of piston. A drop hammer shall not be used. Fixed leads are required. Piling to be 0.2% copper bearing steel. All holes in piles to be drilled or punched in field after piles are driven.

General Notes:

— All work to be done according to the Standard Specifications of the Colorado State Highway Department adopted August 1st 1935.

— All timber to be dense Southern Pine or West Coast Douglas Fir; treated or untreated, as shown in the Bill of Materials.

— Nailers under stringers shall be edged to an even depth, and the ends of all stringers shall be dapped on one edge for grade and to obtain an even depth, before treatment.

— All cut surfaces or bored holes in treated timber shall be thoroly saturated with hot creosote oil.

— All bolts more than 12" long must be threaded not less than 4".

— Bolts in the finished structure shall not project more than ½" beyond the nut.

— All bolts must have standard C.I.O.G. or malleable Cast Washers under each head and nut except as otherwise shown.

— Bolt lengths are calculated assuming C.I.O.G. washers. The contractor is cautioned to check bolt lengths before ordering because of variations in thickness of lumber.

— All concrete is to be Class "A".

— Price bid for Asphalt Plank shall include the cost of Galvanized Barbed Nails.

— All hardware to be galvanized however weights shown are for ungalvanized material.

— All handrailing and posts above top of wheel guards shall be painted white, and all handrail posts below top of wheel guards shall be painted black as specified.

— The entire exposed surface of all untreated timber shall be painted one coat as specified, immediately upon delivery of mat'l to project.

— All contact surfaces of handrail parts shall be given second coat before placing.

— When contractor is permitted to drill holes to facilitate pile driving these holes must be drilled so piling will stand in a vertical position after final driving.

REFERENCE DRAWINGS.

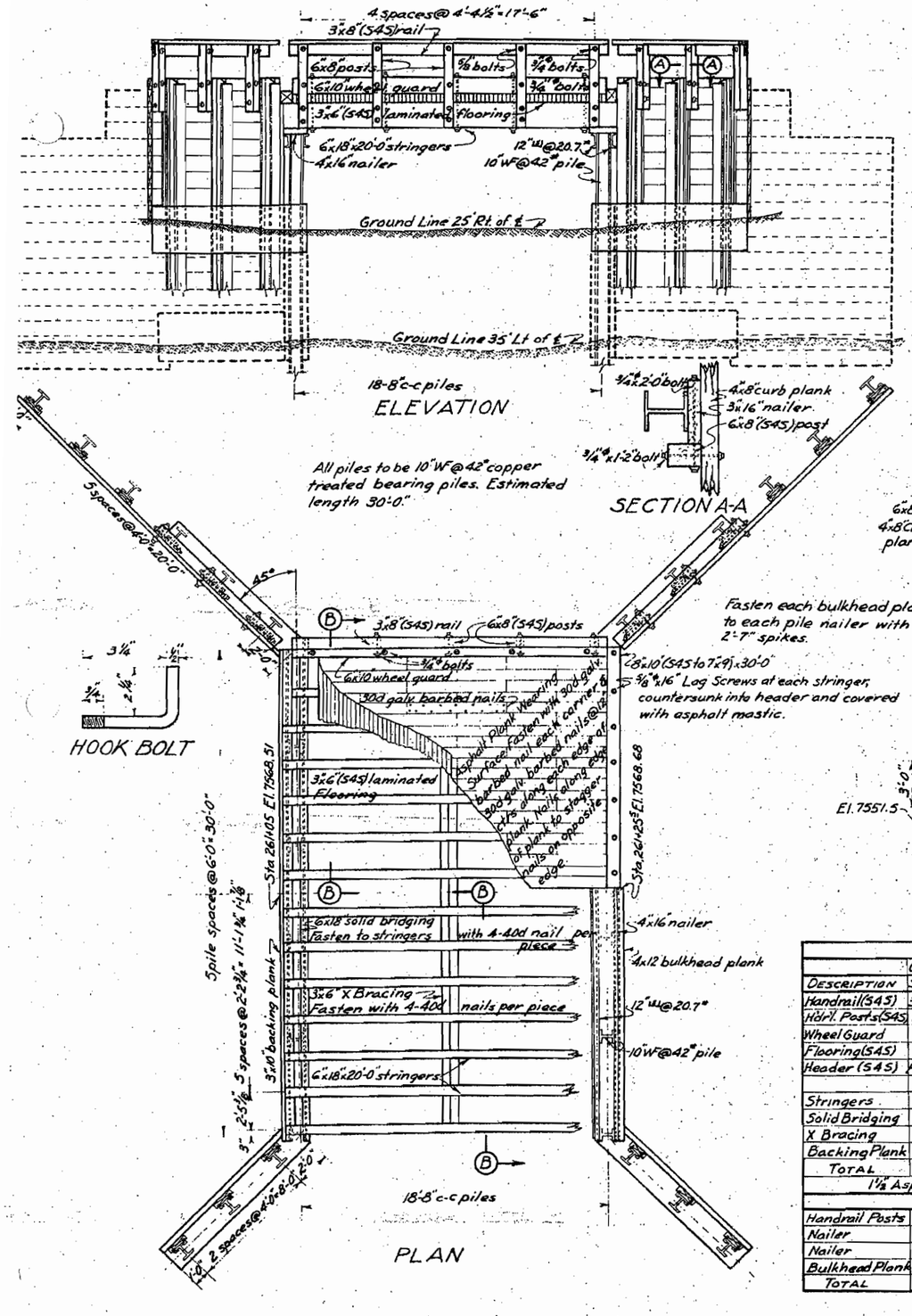
Sheet No. 7 General Details.

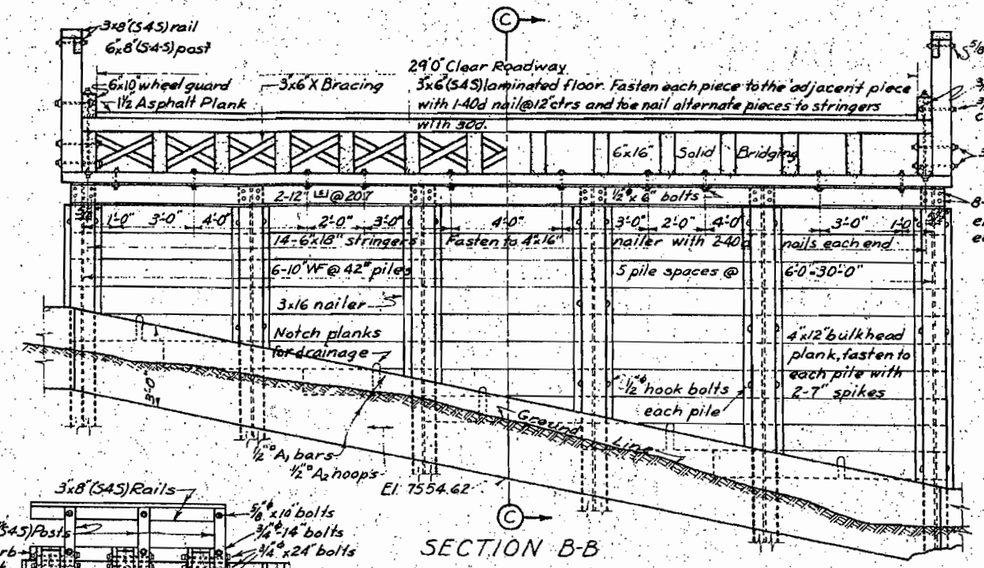
LOADING DATA.
LIVE LOAD—A.A.S.H.O. AUG. 1928 CLASS 3. (H-15)
DEAD LOAD—ASSUMED 150 LBS. PER. SQ. FT.
ADDITIONAL WEARING SURFACE WHICH INCLUDES THE ¾ IN. CONCRETE MONOLITHIC WEARING SURFACE SHOWN.

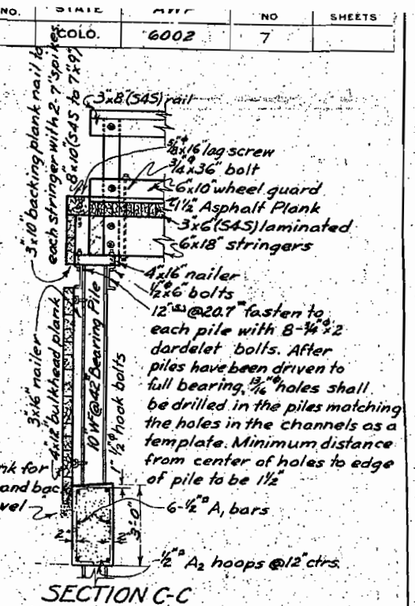
COLORADO
STATE HIGHWAY DEPARTMENT
20' SPAN STEEL PILE TRESTLE
TIMBER DECK
GENERAL LAYOUT & SUMMARY OF QUANTITIES
Access D.2.W. Sta. 261+05 to 261+25
Near Kremmling Sec. 25 T. 2 N. R. 81 W.
Designed by M.D.D. Approved by C. H. Tandy
Checked by R.W.L. Bridge Engineer
Sheet Designed by M.
Check Detailing by D.
Date Nov. 12, 1936

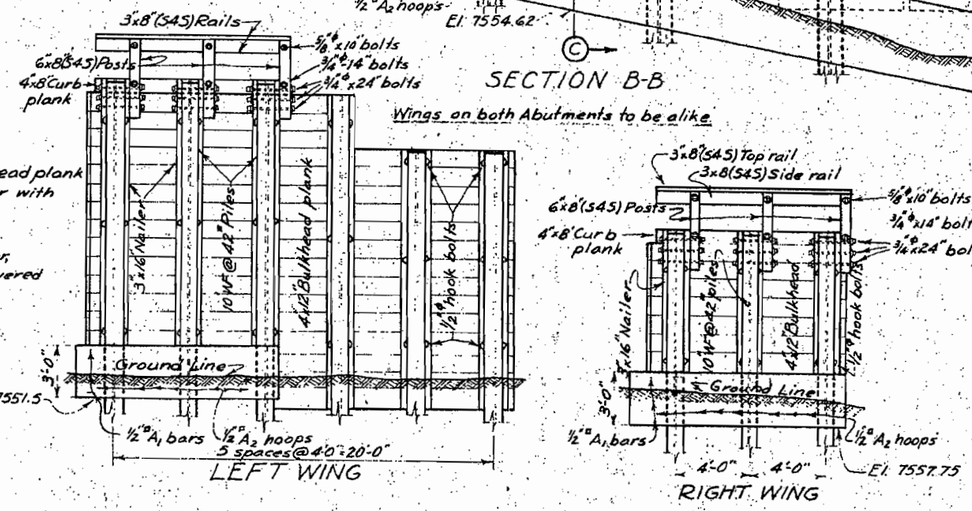
Drawing No. D-11-90

DIST. NO.	STATE	FED. AID PROJ. NO.	SHEETS
3	COLO.	6002	7









HARDWARE					
LOCATION	ITEM	SIZE	No.	LENGTH	Lbs.
Rails to Posts	Bolts	⅝	22	10"	23.76
Posts to Wheel Gd.	"	¾	10	14"	21.20
Posts to Curb Plank	"	¾	12	14"	25.44
Post to Stringers	"	¾	20	16"	47.20
Post to Nailer	"	¾	24	24"	79.68
Wheel Gd to String	"	¾	10	36"	47.60
Nailer to Channels	"	½	40	6"	17.60
Nailer to Piles	Hook B.	½	156	6"	68.64
Header to Str's.	Lags	⅝	28	16"	33.60
½" washers			196		68.60
⅝" washers			72		54.00
¾" washers			52		190.00
TOTAL					677.32

SUPERSTRUCTURE								
	UNTREATED TIMBER				TREATED TIMBER			
DESCRIPTION	SIZE	No.	LENGTH	Bd. Ft.	SIZE	No.	LENGTH	Bd. Ft.
Handrail (S4S)	3"x8"	4	20'-0"	160				
Hdrl. Posts (S4S)	6"x8"	10	5'-0"	200				
Wheel Guard					6"x10"	2	20'-0"	200
Flooring (S4S)					3"x6"	87	30'-0"	3915
Header (S4S)	Finish to 7"x9"				8"x10"	2	30'-0"	400
Stringers					6"x18"	14	20'-0"	2520
Solid Bridging					6"x18"	2	24'-0"	432
X Bracing					3"x6"	4	16'-0"	96
Backing Plank					3"x10"	4	32'-0"	320
TOTAL				360				7883
1½" Asphalt Plank Wearing Surface = 551 sq. ft.								
2 ABUTMENTS								
Handrail Posts						0		
Nailer					4"x16"	2	32'-0"	342
Nailer					3"x16"	6	16'-0"	348
Bulkhead Plank					4"x12"	18	32'-0"	2304
TOTAL								2994

2 RIGHT WINGS 2 LEFT WINGS								
UNTREATED TIMBER								
DESCRIPTION	SIZE	No.	LENGTH	Bd. Ft.	SIZE	No.	LENGTH	Bd. Ft.
Handrail (S4S)	3"x8"	4	10'-0"	80	3"x8"	4	10'-0"	80
Hdrl Posts (S4S)	6"x8"	6	4'-0"	96	6"x8"	6	4'-0"	96
TOTALS				176				176
TREATED TIMBER								
Nailer	3"x16"	6	8'-0"	192	3"x16"	12	16'-0"	768
Bulkhead Plank	4"x12"	16	12'-0"	768	4"x12"	24	24'-0"	2304
Bulkhead Plank					4"x12"	10	14'-0"	560
Curb Plank	4"x8"	2	12'-0"	64	4"x8"	2	12'-0"	64
TOTALS				1024				3696

NAILS		
2918	40d	= 170#
616	30d	= 26#
2070	30d barbed	= 125#
892	7" spikes	= 129#
TOTAL		= 450#

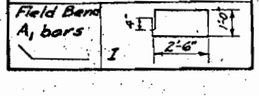
NOTES:
Sheet No. 6 General Layout & Summary of Quantities.

LOADING DATA.
LIVE LOAD A.A.S.H.O. 1936 CLASS A. H-15
DEAD LOAD ASSUMES 15 LBS. PER SQ. FT. ADDITIONAL WEARING SURFACE WHICH INCLUDES THE ¾ INCH CONCRETE MONOLITHIC WEARING SURFACE SHOWN.

DESIGNING DATA.
A.A.S.H.O. 1936 EXCEPT CONCRETE UNIT STRESSES PER A.A.S.H.O. AUG. 1928.

BAR LIST - 2 ABUT'S				
MARK	SIZE	No.	LENGTH	TYPE
A1	½" ⌀	24	29'-0"	Str.
A2	½" ⌀	78	7'-4"	I
1268 lin. ft. ½" ⌀ bars @ 0.85# = 1076#				

Field Bend A1 bars



COPPER TREATED PILES	
30-10" @ 42# x 30'-0" + 1½" = 38,360#	
STRUCTURAL STEEL	
4-12" WF @ 20.7# x 30'-10"	= 2553#
96-½" ⌀ dardelet bolts	= 66#
+ 1½%	= 41#
Total	= 2660#

COLORADO
STATE HIGHWAY DEPARTMENT
20' STEEL PILE TRESTLE
TIMBER DECK
GENERAL DETAILS

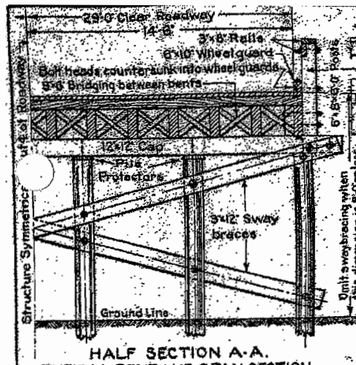
Across Draw
Sta. 261+05 TO 261+25
Near Kremmling Sec. 25 T. 2N R. 81W.

Designed by M.J.D.
Made by E.D.B.
Checked by W.M.

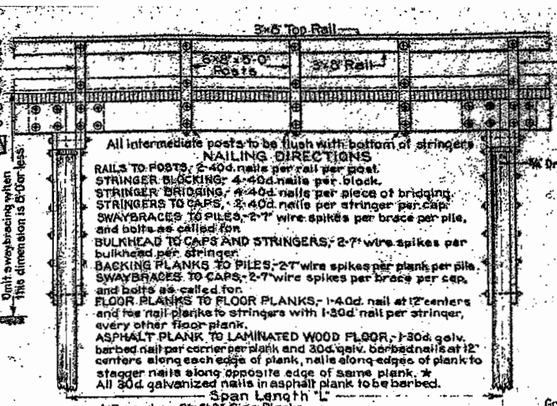
Approved by C. D. Bailey
Bridge Engineer
Date: Nov. 12th 1936

STANDARD P-117-BH-D

FED. ROAD DIST. NO.	STATE	SHEET NO.	TOTAL SHEETS
9	COLO.	8	



HALF SECTION A-A.
TYPICAL BENT AND SPAN SECTION



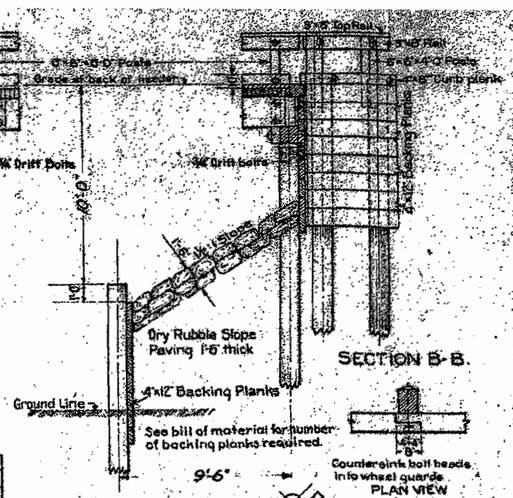
All intermediate posts to be flush with bottom of stringers

NAILING DIRECTIONS

RAILS TO POSTS,- 2-40d. nails per rail per post.
STRINGER BLOCKING,- 4-40d. nails per block.
STRINGER BRIDGING,- 4-40d. nails per piece of bridging.
STRINGERS TO CAPS,- 2-40d. nails per stringer per cap.
SWAYBRACES TO PILES,- 2-7" wire spikes per brace per pile, and bolts as called for.
BULKHEAD TO CAPS AND STRINGERS,- 2-7" wire spikes per bulkhead per stringer.
BACKING PLANKS TO PILES,- 2-7" wire spikes per plank per pile.
SWAYBRACES TO CAPS,- 2-7" wire spikes per brace per cap, and bolts as called for.
FLOOR PLANKS TO FLOOR PLANKS,- 1-40d. nail at 12" centers and toe nail planks to stringers with 1-30d. nail per stringer, every other floor plank.
ASPHALT PLANK TO LAMINATED WOOD FLOOR,- 1-30d. galv. barbed nail per corner per plank and 30d. galv. barbed nails at 12" centers along each edge of plank, nails along edges of plank to stagger nails along opposite edge of same plank. ★
All 30d. galvanized nails in asphalt plank to be barbed.

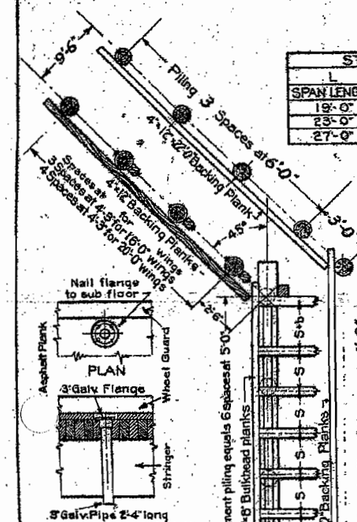
★ Based on 8"x6"x8'-0" Size Planks.

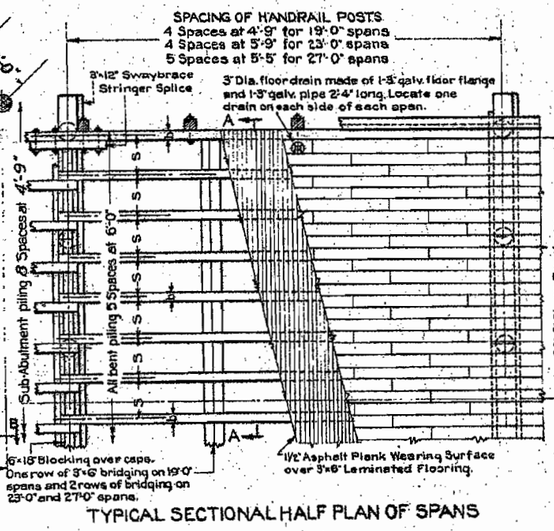
TYPICAL ELEVATION OF SPAN.



SECTION B-B.

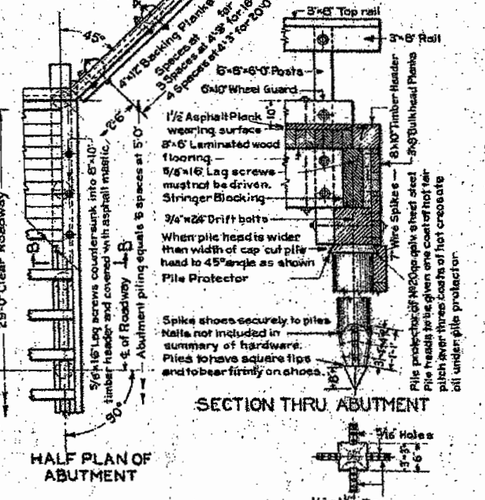
STRINGER SPACING			STRINGER BLOCKING	
L	S	NUMBER OF	ABUTMENTS	BENTS
SPAN LENGTH	MULTIPLE SPAN	STRINGERS	MULTIPLE SPAN	MULTIPLE SPAN
19'-0"	2'-2¾"	14	12 Pcs. 1'-8¾", 1 Pc. 2'-2¾"	13 Pcs. 1'-2¾"
23'-0"	2'-2⅛"	14	12 Pcs. 1'-8¾", 1 Pc. 2'-2¾"	13 Pcs. 1'-2¾"
27'-0"	2'-2½"	14	12 Pcs. 1'-6½", 1 Pc. 2'-2½"	11 Pcs. 10½", 2 Pcs. 1'-0½"





SECTIONAL HALF PLAN OF ABUTMENT

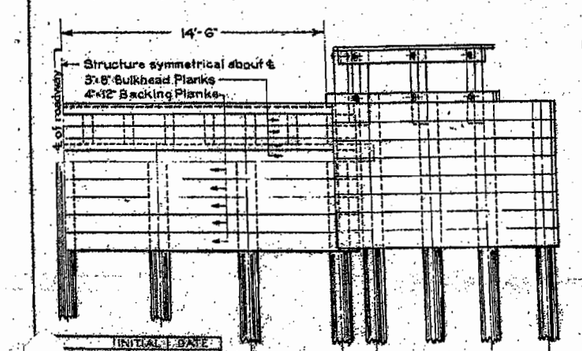
TYPICAL SECTIONAL HALF PLAN OF SPANS



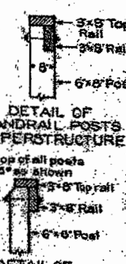
HALF PLAN OF ABUTMENT

SECTION THRU ABUTMENT

PLAN OF PILE SHOE CAST IRON



HALF END ELEVATION
See bill of material for number of backing planks required.



DETAIL OF HANDRAIL POSTS SUPERSTRUCTURE

DETAIL OF HANDRAIL POSTS WINGS.

GENERAL NOTES

All work shall be done according to the standard specifications of the Colorado State Highway Department, Adopted August 1, 1936.
All timber and piling to be treated or untreated as shown in bills of material.
All timber and piling shall be dense southern yellow pine or west coast douglas fir.
All caps shall be edged to an even depth before treatment. The ends of all stringers shall be dapped on one edge before treatment, to obtain an even depth over caps.
All cut surfaces or bored holes in treated timber or piles shall be thoroly saturated with hot creosote oil.
All piling supporting caps shall be covered with galvanized pile protectors as specified, all other piling tops shall be saturated with hot creosote oil and covered with a thick layer of heavy asphalt or tar.
Joints in top handrail must be staggered with joints in side rail.
All handrailing and posts above the wheelguards shall be painted white, and all handrail posts below the top of wheel guards shall be painted black as specified.
All bolts more than 12 inches long must be threaded not less than 4 inches.
Bolts in the finished structure shall not project more than one half inch beyond the nut.
All bolts must have Std. C.I.O.G. or Malleable Cast Washers under each head and nut.
Bolt lengths are calculated assuming C.I.O.G. washers will be used.
The contractor is cautioned to check bolt lengths before ordering because of variations in thickness of lumber and piling.
The entire exposed surface of all untreated timber shall be painted one coat as specified immediately after the material is delivered to the project.
Before placing handrailing the contact surfacing shall receive the second coat of paint.
When contractor is permitted to drill holes to facilitate pile driving, these holes must be drilled so piling will stand in vertical position after final driving.
Bid price for asphalt plank shall include galvanized barbed nails.
All hardware to be galvanized. Weights of hardware as shown are for ungalvanized material.
All necessary blocking for sway bracing shall be treated timber.

	INITIAL	DATE
FINAL BY E.W.T.		10-15-36
CHECKED BY R.A.D.		10-16-36
WANDYKE BY C.B.M.		10-16-36
CHECKED BY R.A.D.		10-17-36

STANDARD P-117-BH-D

BOLTS AND WASHERS FOR ONE SPAN OF SUPERSTRUCTURE

LOCATION	SIZE	19'-0" SPAN NO.	LENGTH	LBS	23'-0" SPAN NO.	LENGTH	LBS	27'-0" SPAN NO.	LENGTH	LBS
POSTS TO RAILS	5/8	6	10"	7.0	6	10"	7.0	6	10"	7.0
POSTS TO WHEEL GUARDS	3/4	6	14"	12.1	6	14"	12.1	6	14"	12.1
POSTS TO STRINGERS	3/4	12	16"	14.3	12	16"	28.6	16	16"	42.9
WHEEL GUARD TO STRINGERS	3/4	6	36"	28.0	6	36"	28.0	8	36"	40.0
WASHERS - STD. C.I.O.G. 5/8 & 3/4		12/48		69.0	12/48		69.0	18/64		92.0
TOTAL WEIGHT				146.0			147.0			200.0

BOLTS AND WASHERS FOR ONE ABUTMENT

LOCATION	ITEM	SIZE	NO.	LENGTH	WT. EACH	TOTAL WT.
POSTS TO RAILS	BOLTS	5/8	2	10"	1.08 LBS.	2.2 LBS.
POST TO BULKHEAD TO CAP	BOLTS	5/8	2	33"	2.15 LBS.	4.3 LBS.
POSTS TO STRINGERS	BOLTS	3/4	4	18"	2.60 LBS.	10.4 LBS.
POST TO WHEEL GUARDS	BOLTS	3/4	2	14"	2.12 LBS.	4.2 LBS.
WHEEL GUARDS TO STRINGERS	BOLTS	3/4	2	36"	5.00 LBS.	10.0 LBS.
TIMBER HEADER TO STRINGERS	LAG SCREWS	5/8	14	16"	1.36 LBS.	19.1 LBS.
WASHERS - STD. C.I.O.G.	WASHERS	5/8 & 3/4	27/6	0.75/1.25	1.25 LBS.	32.7 LBS.
CAPS TO PILES	DRIFT BOLTS	3/4	7	24"	3.00 LBS.	21.0 LBS.
TOTAL WEIGHT						106.0 LBS.

BOLTS AND WASHERS FOR ONE WING

POSTS TO RAILS	BOLTS	5/8	2	10"	1.16 LBS.	2.4 LBS.
POSTS TO PILES	BOLTS	3/4	6	20"	2.84 LBS.	17.0 LBS.
PILES TO CURB PLANK	BOLTS	5/8	3	16"	1.74 LBS.	5.2 LBS.
WASHERS - STD. C.I.O.G.	WASHERS	5/8 & 3/4	27/12	0.75/1.25	1.25 LBS.	25.2 LBS.
TOTAL WEIGHT						50.0 LBS.

BOLTS AND WASHERS FOR ONE BENT

POSTS TO RAILS	BOLTS	5/8	2	10"	1.08 LBS.	2.2 LBS.
POSTS TO WHEEL GUARDS	BOLTS	3/4	2	14"	1.12 LBS.	2.2 LBS.
POSTS TO CAPS WITHOUT SWAYS	BOLTS	5/8	2	20"	1.95 LBS.	4.3 LBS.
WHEEL GUARDS TO STRINGERS	BOLTS	3/4	2	36"	5.00 LBS.	10.0 LBS.
POSTS TO STRINGERS TO SPLICES	BOLTS	3/4	4	24"	3.32 LBS.	13.3 LBS.
SPLICES TO STRINGERS	BOLTS	5/8	12	16"	1.51 LBS.	18.1 LBS.
POSTS TO CAP TO SWAYS	BOLTS	5/8	2	26"	2.15 LBS.	4.3 LBS.
SWAYS TO CAPS	BOLTS	5/8	2	17"	1.66 LBS.	3.3 LBS.
SWAYS TO PILES	BOLTS	5/8	12	17"	1.66 LBS.	19.9 LBS.
WASHERS - STD. C.I.O.G. NO SWAYS	WASHERS	5/8 & 3/4	32/16	0.75/1.25	1.25 LBS.	44.0 LBS.
WASHERS - STD. C.I.O.G. WITH SWAYS	WASHERS	5/8 & 3/4	50/16	0.75/1.25	1.25 LBS.	64.8 LBS.
CAPS TO PILES	DRIFT BOLTS	3/4"	6	24"	3.00 LBS.	18.0 LBS.
TOTAL WEIGHT - WITHOUT SWAYS						115.0 LBS.
TOTAL WEIGHT - WITH SWAYS						159.0 LBS.

NAILS

LOCATION	ITEM	19'-0" SPAN	23'-0" SPAN	27'-0" SPAN
ONE SPAN OF SUPERSTRUCTURE	30D. COMMON	25 LBS.	30 LBS.	35 LBS.
	30D. GALV. BARBED	125 LBS.	150 LBS.	175 LBS.
	40D. COMMON	155 LBS.	195 LBS.	225 LBS.
ONE ABUTMENT	40D. COMMON	5 LBS.	5 LBS.	5 LBS.
	7" WIRE SPIKES	LBS.	24 LBS.	LBS.
ONE WING	40D. COMMON	1 LBS.	1 LBS.	1 LBS.
	7" WIRE SPIKES	LBS.	8 LBS.	LBS.
ONE SUB-ABUTMENT	7" WIRE SPIKES	LBS.	49 LBS.	LBS.
ONE BENT	40D. COMMON	7 LBS.	7 LBS.	7 LBS.
	7" WIRE SPIKES	LBS.	4 LBS.	LBS.

SUMMARY FOR HARDWARE

BOLTS AND WASHERS	5 SPANS	AT	147 LBS. PER SPAN	735 LBS.
	2 ABUTMENTS	AT	108 LBS. PER ABUTMENT	216 LBS.
	4 WINGS	AT	50 LBS. PER WING	200 LBS.
	BENTS WITHOUT SWAYS	AT	115 LBS. PER BENT	LBS.
	4 BENTS WITH SWAYS	AT	159 LBS. PER BENT	636 LBS.
	TOTAL WEIGHT			1787 LBS.

NAILS	LOCATION	UNIT	30D. COMMON EACH	30D. COMMON TOTAL	30D. GALV. EACH	30D. GALV. TOTAL	40D. COMMON EACH	40D. COMMON TOTAL	7" WIRE SPIKES EACH	7" WIRE SPIKES TOTAL
	5 SPANS	LBS.	30	150	150	750	195	975	-	-
	2 ABUTMENTS	LBS.	-	-	-	-	5	10	24	48
	4 WINGS	LBS.	-	-	-	-	-	-	4	8
	2 SUB-ABUTS.	LBS.	-	-	-	-	-	-	38	76
	4 BENTS	LBS.	-	-	-	-	7	28	4	16
	TOTAL WEIGHT	LBS.		150		750		1013		148

SUMMARY OF QUANTITIES

STRUCTURAL EXCAVATION

ITEM 14a. DRY ROCK					CU. YDS.
ITEM 14b. DRY COMMON				200	CU. YDS.
ITEM 14c. WET ROCK					CU. YDS.
ITEM 14d. WET COMMON				10	CU. YDS.

ITEM 42a UNTREATED BRIDGE TIMBER

5 SPANS	AT	312	BD. FT. EACH	=	1560 BD. FT.
2 ABUTMENTS	AT	48	BD. FT. EACH	=	96 BD. FT.
4 WINGS	AT	84	BD. FT. EACH	=	336 BD. FT.
4 BENTS	AT	48	BD. FT. EACH	=	192 BD. FT.
			TOTAL	=	2184 BD. FT.

ITEM 42b TREATED BRIDGE TIMBER

5 SPANS	AT	3552	BD. FT. EACH	=	17,104 BD. FT.
5 SPANS	AT	4142	BD. FT. EACH	=	20,665 BD. FT.
2 ABUTMENTS	AT	1592	BD. FT. EACH	=	3184 BD. FT.
4 WINGS	AT	480	BD. FT. EACH	=	1920 BD. FT.
2 SUB-ABUTMENTS	AT	2688	BD. FT. EACH	=	5376 BD. FT.
4 BENTS	AT	858	BD. FT. EACH	=	3432 BD. FT.
			TOTAL	=	56642 BD. FT.

ITEM 43 ASPHALT PLANK WEARING SURFACE

5 SPANS	AT	667	SQ. FT. EACH	=	3335 SQ. FT.

ITEM 60a PILING - TREATED

2 ABUTMENTS	AT	280	LIN. FT. EACH	=	560 LIN. FT.
4 WINGS	AT	168	LIN. FT. EACH	=	672 LIN. FT.
2 SUB-ABUTMENTS	AT	544	LIN. FT. EACH	=	1088 LIN. FT.
4 BENTS	AT	240	LIN. FT. EACH	=	960 LIN. FT.
			TOTAL	=	3280 LIN. FT.

ITEM 60c TREATED PILING CUT-OFF

					10 LIN. FT.

ITEM 60e METAL PILE SHOES

SHOES	AT	55 LBS. EACH			SHOES

ITEM 65. DRY RUBBLE SLOPE PAVING - 1'-6" THICK

					140 SQ. YDS.

ITEM 69b. DRAIN PIPE

2 PIECES 3" DIA. GALV. PIPE 2'-4" LONG WITH ONE 3" GALV. FLANGE ON EACH PIPE					
5 SPANS	AT	2 COMPLETE PER SPAN	=	10	PIECES

ITEM 13c. UNCLASSIFIED EXCAVATION

				3500	CU. YD.

ONE SPAN OF SUPERSTRUCTURE

UNTREATED TIMBER

DESCRIPTION	SIZE	19'-0" SPAN NO.	LENGTH	TOTAL	23'-0" SPAN NO.	LENGTH	TOTAL	27'-0" SPAN NO.	LENGTH	TOTAL
HANDRAILS 343	3"x8"	2	20'-0"	160 BD.FT.	2	24'-0"	192 BD.FT.	4	28'-0"	224 BD.FT.
HANDRAIL POSTS 343	6"x8"	6	5'-0"	120 BD.FT.	6	5'-0"	120 BD.FT.	8	5'-0"	160 BD.FT.
TOTAL UNTREATED TIMBER				280 BD.FT.			312 BD.FT.			384 BD.FT.

TREATED TIMBER

FLOORING 343	3"x6"	187	30'-0"	3915 BD.FT.	206	30'-0"	4470 BD.FT.	224	30'-0"	5590 BD.FT.		
BRIDGING	4"x8"	4	16'-0"	96 BD.FT.	8	16'-0"	192 BD.FT.	8	16'-0"	192 BD.FT.		
WHEEL GUARDS	6"x10"	2	20'-0"	200 BD.FT.	2	24'-0"	240 BD.FT.	2	28'-0"	280 BD.FT.		
STRINGERS OUTSIDE	6"x16"	2	19'-0"	342 BD.FT.								
	6"x20"				2	23'-0"	460 BD.FT.					
INTERMEDIATE SPANS	6"x20"							2	27'-0"	720 BD.FT.		
STRINGERS OUTSIDE END SPANS	6"x16"	2	19'-6"	351 BD.FT.								
	6"x20"				2	23'-6"	470 BD.FT.					
	6"x20"							2	27'-6"	734 BD.FT.		
STRINGERS INSIDE INTERMEDIATE AND END SPANS	6"x16"	12	20'-0"	2160 BD.FT.								
	6"x20"				12	24'-0"	2880 BD.FT.					
	6"x20"							12	28'-0"	4480 BD.FT.		
TOTAL TR. TIMBER END SPANS				6722 BD.FT.			6552 BD.FT.			11266 BD.FT.		
TOTAL TR. TIMBER INTER. SPANS				8715 BD.FT.			8842 BD.FT.			11252 BD.FT.		
ASPHALT PLANK WEARING SURF.				351 SQ.FT.			667 SQ.FT.			753 SQ.FT.		

ONE ABUTMENT

UNTREATED TIMBER

HANDRAIL POSTS 343	2 PCS.	6"x8"x8'-0"	1	48 BD.FT.
TOTAL UNTREATED TIMBER				48 BD.FT.

TREATED TIMBER

TIMBER HEADER	1 PC.	8"x10"x30'-0" FINISH 107'-9"	1	200 BD.FT.
CAP	1 PC.	12"x12"x34'-0"	1	408 BD.FT.
BULKHEAD PLANKS	4 PCS.	3"x12"x32'-0"	2	256 BD.FT.
BACKING PLANKS	4 PCS.	4"x12"x32'-0"	2	512 BD.FT.
STRINGER BLOCKING 19' & 23' SPANS	1 PC.	6"x16"x24'-0"	1	216 BD.FT.
CUT BOLTS & TREATMENT 27' SPANS	1 PC.	6"x16"x22'-0"	1	198 BD.FT.
TOTAL TREATED TIMBER				1592 BD.FT.
PILING - TREATED	7 PIECES AT 40 LIN. FT. EACH =			280 LIN. FT.

ONE WING

UNTREATED TIMBER

DESCRIPTION	SIZE	16'-0" LENGTH NO.	LENGTH	BD.FT.	20'-0" LENGTH NO.	LENGTH	BD.FT.	LENGTH NO.	LENGTH	BD.FT.
HANDRAILS 343	3"x8"	1	12'-0"	24	1	12'-0"	24	1	12'-0"	24
HANDRAIL POSTS 343	3"x8"	1	12'-0"	24	1	12'-0"	24	1	12'-0"	24
TOTAL UNTREATED TIMBER - BD. FT.				84			84			84

TREATED TIMBER

CURB PLANKS	4"x8"	1	12'-0"	32	1	12'-0"	32	1	12'-0"	32
BACKING PLANKS	4"x12"	7	16'-0"	448		20'-0"				
TOTAL TREATED TIMBER - BD. FT.				480						
PILING - TREATED	4 PIECES AT 42 LIN. FT. EACH =									168 LIN. FT.

ONE SUB-ABUTMENT AND WINGS

TREATED TIMBER

BACKING PLANKS	8 PCS.	4"x12"x40'-0"		1280 BD.FT.
BACKING PLANKS	16 PCS.	4"x12"x22'-0"		1408 BD.FT.
BACKING PLANKS	PCS.	4"x12"x		BD.FT.
BACKING PLANKS	PCS.	4"x12"x		BD.FT.
TOTAL TREATED TIMBER				2688 BD.FT.
PILING - TREATED	17 PIECES AT 32 LIN. FT. EACH =			544 LIN. FT.

ONE BENT

UNTREATED TIMBER

HANDRAIL POSTS 343	2 PCS.	6"x8"x8'-0"	1	48 BD.FT.
TOTAL UNTREATED TIMBER				48 BD.FT.

TREATED TIMBER

STRINGER SPLICES	2 PCS.	6"x8"x4'-0"		72 BD.FT.
CAP	1 PC.	12"x12"x34'-0"		408 BD.FT.
SWAYBRACES	2 PCS.	3"x12"x36'-0"		216 BD.FT.
STRINGER BLOCKING 19' & 23' SPANS	1 PC.	6"x16"x22'-0"		132 BD.FT.
Cut before treatment 27' SPANS	1 PC.	6"x16"x12'-0"		72 BD.FT.
STIRRS	14 PCS.	2"x6"x5'-0"		70 BD.FT.
TOTAL TREATED TIMBER				858 BD.FT.
PILING - TREATED	6 PIECES AT 40 LIN. FT. EACH =			240 LIN. FT.

STRUCTURES REQUIRED
5 SPANS AT 23'-0"
SPANS AT

LOADING DATA.
LIVE LOAD: A.A.S.H.O. AVG. 1935 CLASS A. H-15
DEAD LOAD: ASSUME 20 LBS. PER SQ. FT. ADDITIONAL WEARING SURFACE. THIS INCLUDES THE 1½" ASPHALT PLANK WEARING SURFACE.

COLORADO
STATE HIGHWAY DEPARTMENT
TREATED TIMBER PILE TRESTLE
WITH 6" LAMINATED FLOOR AND 1½" ASPHALT PLANK WEARING SURFACE
DOUBLE ABUTMENTS: 29 FT. ROADWAY
Across MUDDY CREEK
Site 441+60 - 442+76.5
Near KIT MILING Sec. 7 T.1 N. R. 80 W.

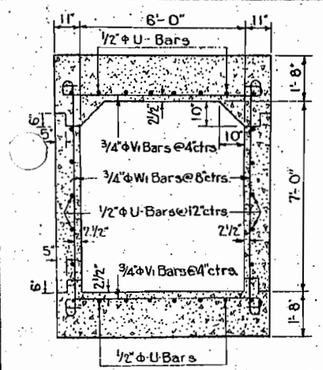
Designed by E.W.T.	Approved by R. A. Dark	
Made by E.W.T.	Bridge Engineer	
Check Design A.G.K.		
Check Detail A.G.K.	Date: March 20th, 1936	

STRUCTURE NO. D-11-L

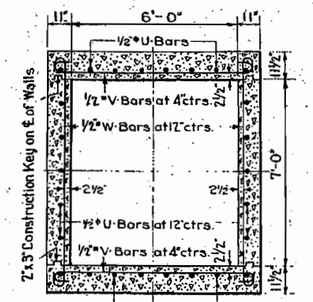
STANDARD M-103-D

Revised for A.W.P-6002
Sta. 248+42 Skew 60°

FED. ROAD DIST. NO.	STATE	A.W.PROJ. No.	SHEET NO.	TOTAL SHEETS
3	COLO.	6002	9	



SECTION "A-A"



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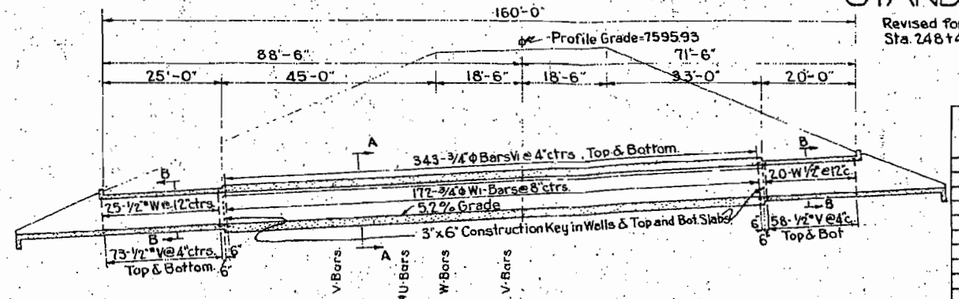
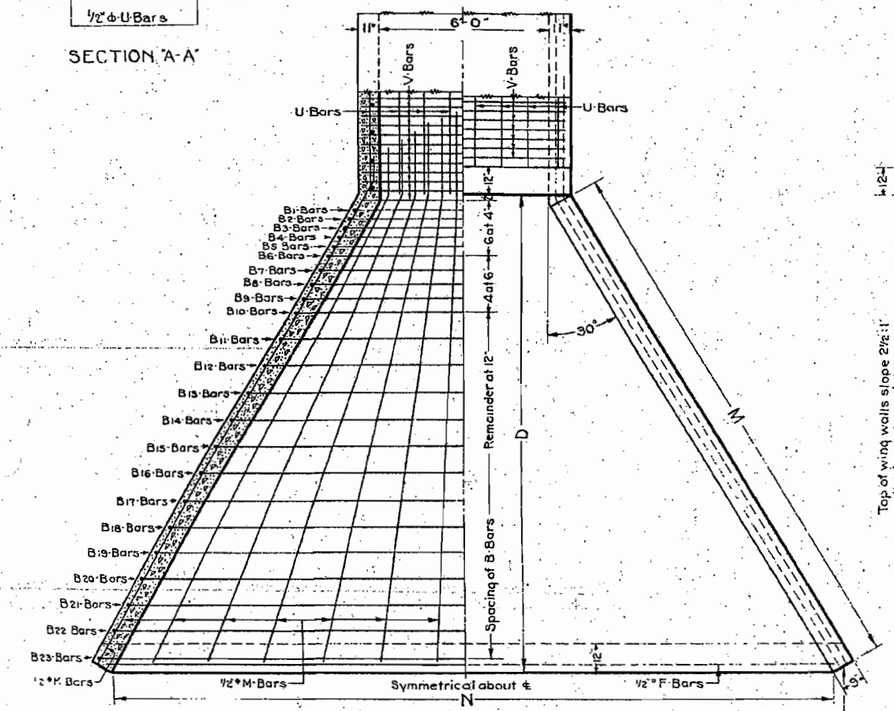
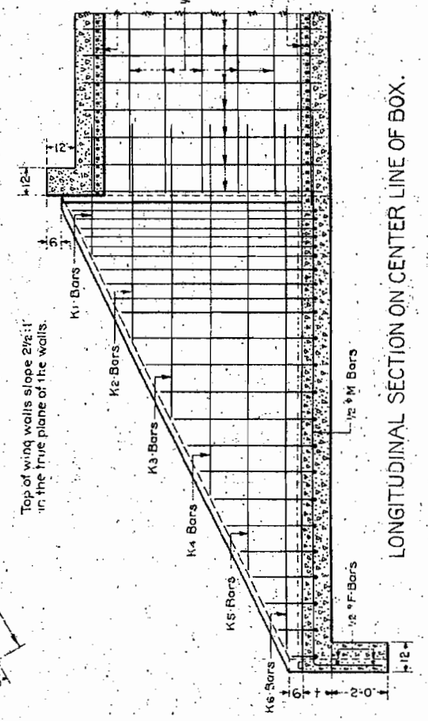
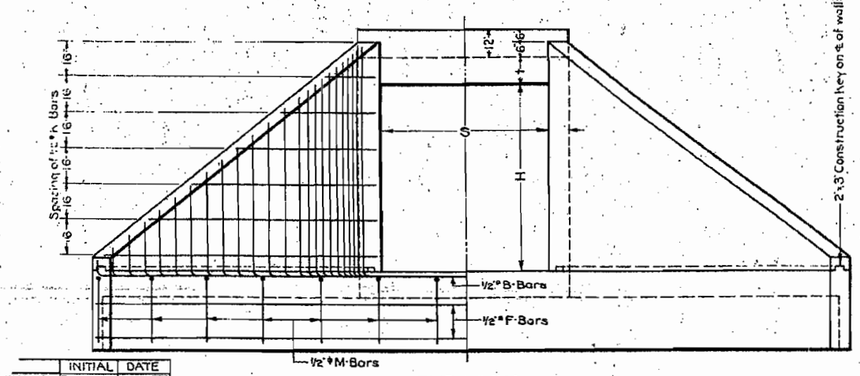




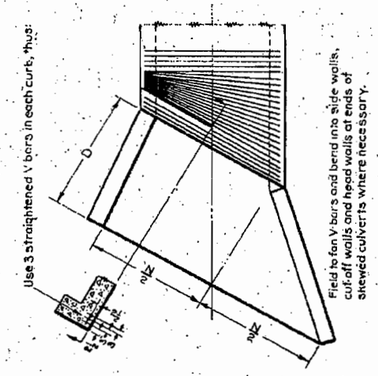
PART PLAN.



LONGITUDINAL SECTION ON CENTER LINE OF BOX.



END VIEW.



PART PLAN FOR SKEWED HEADWALLS.

REINFORCEMENT BAR LIST

W.W.D.

TYPE	USE BARS FOR	MARK	SIZE	NUMBER	DIMENSION P	DIMENSION Q	TOTAL LENGTH
I	All Sizes	V	1/2"ϕ	268	6'-10"		8'-2"
I	" "	V1	3/4"ϕ	686	6'-10"		8'-10"
I	" "	W	1/2"ϕ	90	7'-10"		9'-2"
I	" "	W1	3/4"ϕ	344	7'-10"		9'-10"
II	" "	F	1/2"ϕ	4			N+0'-3"
III	" "	K1				3'-4" to	5'-4" to
III		to	4 Ea			20'-0"	22'-0"
III	H=7'-0"	K6				by 3'-4"	by 3'-4"
	All Sizes	B 1	1/2"ϕ	2	S+ 1'-6"	H+ 1'-3"	
	" "	B 2	1/2"ϕ	2	S+ 1'-11"	H+ 1'-1"	
	" "	B 3	1/2"ϕ	2	S+ 2'-3"	H+ 0'-11"	
	" "	B 4	1/2"ϕ	2	S+ 2'-8"	H+ 0'-9"	
	" "	B 5	1/2"ϕ	2	S+ 3'-0"	H+ 0'-8"	
	" "	B 6	1/2"ϕ	2	S+ 3'-5"	H+ 0'-6"	
	" "	B 7	1/2"ϕ	2	S+ 4'-0"	H+ 0'-3"	
	" "	B 8	1/2"ϕ	2	S+ 4'-7"	H+ 0'-0"	
	" "	B 9	1/2"ϕ	2	S+ 5'-2"	H- 0'-3"	
	H+ 1'-6" or more	B 10	1/2"ϕ	2	S+ 5'-9"	H- 0'-5"	
	H+ 2'-0"	B 11	1/2"ϕ	2	S+ 6'-11"	H- 0'-11"	
	H+ 3'-0"	B 12	1/2"ϕ	2	S+ 8'-1"	H- 1'-4"	
	H+ 3'-0"	B 13	1/2"ϕ	2	S+ 9'-3"	H- 1'-10"	
	H+ 3'-0"	B 14	1/2"ϕ	2	S+ 10'-5"	H- 2'-3"	
	H+ 4'-0"	B 15	1/2"ϕ	2	S+ 11'-7"	H- 2'-9"	
	H+ 4'-0"	B 16	1/2"ϕ	2	S+ 12'-9"	H- 3'-3"	
	H+ 5'-0"	B 17	1/2"ϕ	2	S+ 13'-11"	H- 3'-8"	
	H+ 5'-0"	B 18	1/2"ϕ	2	S+ 15'-1"	H- 4'-2"	
	H+ 6'-0"	B 19	1/2"ϕ	2	S+ 16'-3"	H- 4'-7"	
	H+ 6'-0"	B 20	1/2"ϕ	2	S+ 17'-5"	H- 5'-1"	
	H+ 6'-0"	B 21	1/2"ϕ	2	S+ 18'-7"	H- 5'-6"	
	H+ 7'-0"	B 22	1/2"ϕ	2	S+ 19'-9"	H- 6'-0"	
	H+ 7'-0"	B 23	1/2"ϕ	2	S+ 20'-11"	H- 6'-5"	
	All Sizes	M	1/2"ϕ	(S+1)x4	D+ 3'-0"		D+ 5'-3"

BENDING DIAGRAM
ALL DIMENSIONS ARE TO ℄ OF BARS

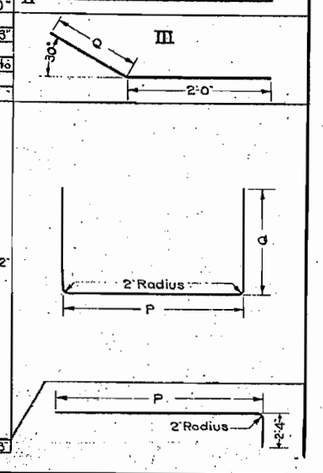


TABLE OF DIMENSIONS AND QUANTITIES

W.W.D.

STEEL QUANTITIES GIVEN BELOW INCLUDE ALLOWANCE FOR OVERRUN OF 1%.
TOTAL QUANTITIES FOR ONE BOX EQUALS THE QUANTITY FOR TWO HEADWALLS PLUS (L x QUANTITY FOR ONE LINEAL FT. OF BOX)

	SPAN S	HEIGHT H	HEIGHT OF FILL ALLOWED	DIMENSION M	DIMENSION N	DIMENSION D	THICKNESS OF SLAB t	NUMBER OF U BARS PER BOX	QUANTITIES FOR ONE LINEAL FT. OF BOX: CONCRETE CU.YDS.	QUANTITIES FOR ONE LINEAL FT. OF BOX: STEEL LBS.	QUANTITIES FOR TWO HEADWALLS: CONCRETE CU.YDS.	QUANTITIES FOR TWO HEADWALLS: STEEL LBS.	STRUCTURAL EXCAVATION: TWO HEADWALLS SQ.FT.	STRUCTURAL EXCAVATION: TWO CUT-OFF WALLS CU.YDS.
	1'-6"	1'-6"	29'-6"	5'-6 1/4"	7'-2 3/8"	5'-1 7/8"	8 1/2"	8	0.241	30.6	4.5	320	116.91	4.40
	2'-0"	2'-0"	22'-6"	6'-9 1/4"	8'-11 5/8"	6'-2 7/8"	8 1/2"	8	0.295	34.0	6.1	430	153.44	5.18
	3'-0"	1'-0"	15'-0"	4'-7"	7'-9 3/8"	4'-4 1/8"	10"	8	0.332	37.5	5.0	360	116.50	4.65
	3'-0"	2'-0"	15'-0"	7'-1"	10'-3 3/8"	6'-6 1/8"	10"	10	0.386	40.5	7.7	495	178.11	5.76
	3'-0"	3'-0"	15'-0"	9'-7"	12'-9 3/8"	8'-8 1/8"	10"	12	0.444	43.6	11.0	680	250.88	6.87
	4'-0"	2'-0"	15'-0"	7'-1"	11'-3 3/8"	6'-6 1/8"	10"	12	0.450	47.0	8.5	565	195.13	6.19
	4'-0"	3'-0"	15'-0"	9'-7"	13'-9 3/8"	8'-8 1/8"	10"	14	0.506	50.0	12.0	755	272.24	7.31
	4'-0"	4'-0"	15'-0"	12'-1"	16'-3 3/8"	10'-10 1/8"	10"	16	0.562	53.1	16.0	910	359.71	8.42
	5'-0"	3'-0"	11'-6"	9'-7"	14'-9 3/8"	8'-8 1/8"	10"	16	0.567	56.6	12.8	835	293.60	7.76
	5'-0"	4'-0"	11'-6"	12'-1"	17'-3 3/8"	10'-10 1/8"	10"	18	0.623	59.6	17.1	995	385.43	8.87
	5'-0"	5'-0"	11'-6"	14'-7"	19'-5 3/8"	13'-0"	10"	20	0.679	62.7	21.9	1220	488.07	9.98
	6'-0"	2'-0"	10'-0"	7'-4 3/4"	13'-7 1/8"	6'-9 3/8"	11 1/2"	16	0.645	60.0	11.3	705	239.30	7.23
	6'-0"	3'-0"	10'-0"	9'-10 3/4"	16'-1 1/8"	8'-11 1/4"	11 1/2"	18	0.699	63.0	15.3	920	325.95	8.34
	6'-0"	4'-0"	10'-0"	12'-4 3/4"	18'-7 1/8"	11'-1 1/4"	11 1/2"	20	0.755	66.2	20.1	1090	423.57	9.45
	6'-0"	5'-0"	10'-0"	14'-10 3/4"	21'-1 1/8"	13'-3 1/4"	11 1/2"	22	0.810	69.2	25.6	1320	532.02	10.56
	6'-0"	6'-0"	10'-0"	17'-4 3/4"	23'-7 1/8"	15'-5 1/4"	11 1/2"	24	0.866	72.3	31.7	1620	651.48	11.67
	6'-0"	7'-0"	10'-0"	19'-10 3/4"	26'-1 1/8"	17'-7 1/4"	11 1/2"	26	0.923	75.3	38.5	1900	781.58	12.79
SPECIAL PORTION	6'-0"	7'-0"	28'-0"				20"	26	1.465	141.7				
STANDARD PORTION	6'-0"	7'-0"	10'-0"				11 1/2"	26	1.031	75.3	38.5	1900		

GENERAL NOTES.

All work shall be done according to the Standard Specifications of the Colorado State Highway Department. Adopted August 1, 1935.

All concrete shall be class "A".

All exposed surfaces shall be rubbed free of form marks.

All walls shall have forms on both sides.

Minimum distance between center line of bar and edge of concrete to be 2 1/2".

All construction joints shall be thoroughly cleaned before fresh concrete is poured.

Footings in rock shall be poured out to the rock and not formed.

For culverts required and governing dimensions see sheet No. 2.

All reinforcing bars shall be deformed.

All reinforcing bars shall be tagged with the station number and letter designation.

Secondary bars when spliced shall be given a lap of 50 diameters.

Main bars shall not be spliced.

Soundings and depth of footings shown are according to the best available data, if essentially different conditions are encountered, the engineer will inspect and determine if redesign is necessary.

Pour wing footings monolithically with floor of box.

The use of additional construction joints undesirable, should field conditions require, construction joints may be made on a vertical plane perpendicular to center line of culvert and shall have a 2"x3" key.

This design not to be used when height of fill exceeds the allowable tabulated.

Supporting soils for all culverts must be composed of firm and uniform material throughout.

All backfilling in approaches, to and over culverts, shall be laid in layers not exceeding 6 inches in depth and each layer shall be rolled or hand tamped where inaccessible to roller, also moistened when necessary.

LOADING DATA
L.L.=A.A.S.H.O. Aug. 1928. Class "A" (H-15)

COLORADO
STATE HIGHWAY DEPARTMENT
CONCRETE BOX CULVERTS

1 1/2"x1 1/2"	4'x2'	5'x4'	6'x4'
2'x2'	4'x3'	5'x5'	6'x5'
3'x1'	4'x4'	6'x2'	6'x6'
3'x2'	5'x3'	6'x3'	6'x7'
3'x3'			

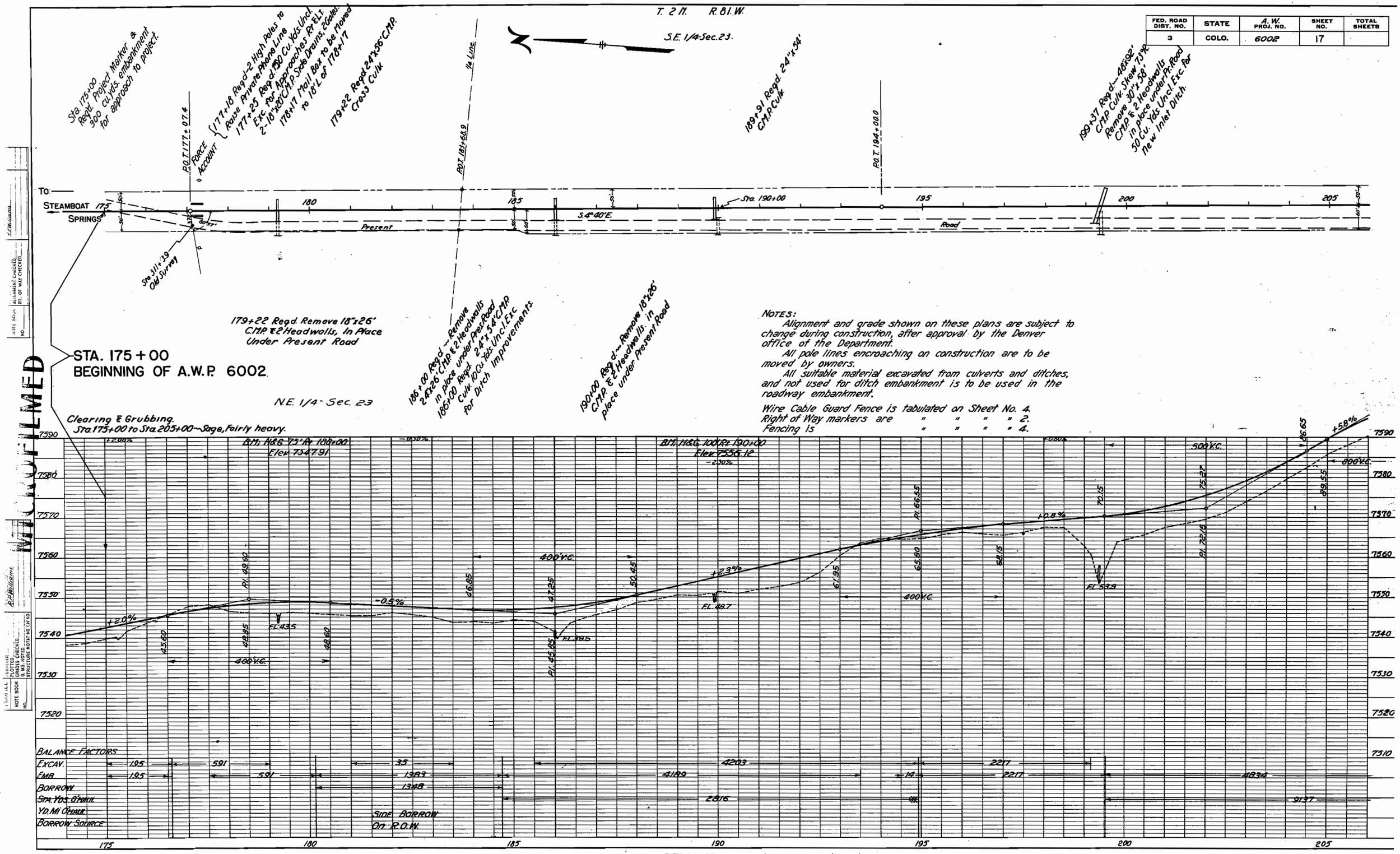
Designed by A.G.K.
Made by A.G.K.
Check Design
Check Detail H.E.S.
Approved by P. L. Darby
Bridge Engineer
Date: April 25th 1936

	INITIAL	DATE
ORIGINAL BY		
CHECKED BY		
VANDYKE BY		
CHECKED BY		

STANDARD M-103-D

STRUCTURE NO.

FED. ROAD DIST. NO.	STATE	A.W. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	6002	17	



NOTES:

Alignment and grade shown on these plans are subject to change during construction, after approval by the Denver office of the Department.

All pole lines encroaching on construction are to be moved by owners.

All suitable material excavated from culverts and ditches, and not used for ditch embankment is to be used in the roadway embankment.

Wire Cable Guard Fence is tabulated on Sheet No. 4.
Right of Way markers are " " " " 2.
Fencing is " " " " 4.

PLATE 1—PLAN—PROFILE O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO. NEW YORK

FED. ROAD DIST. NO.	STATE	A.W. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	6002	18	

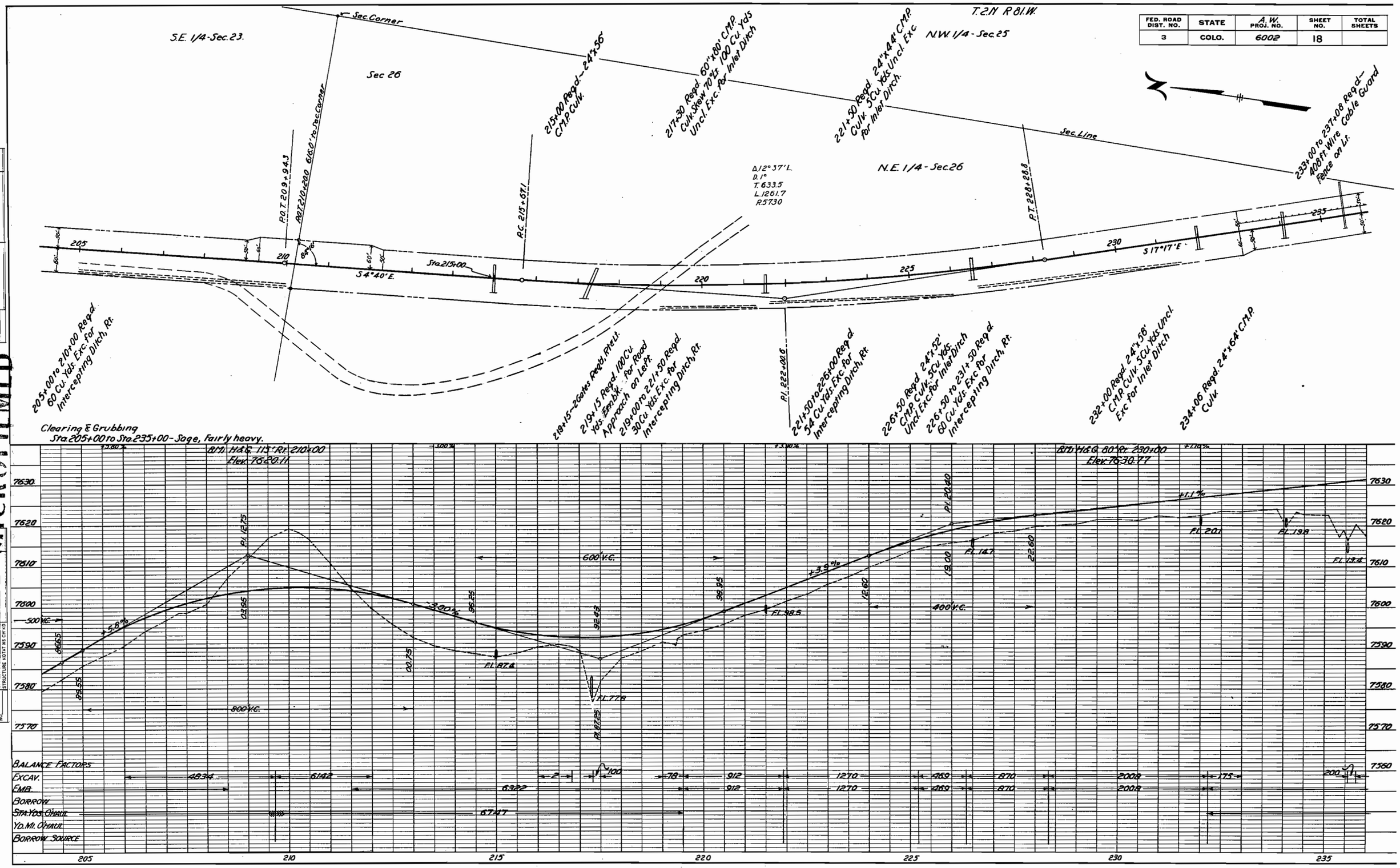


PLATE 1—PLAN—PROFILE O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK

FILMED

FED. ROAD DIST. NO.	STATE	A.W. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	6002	19	

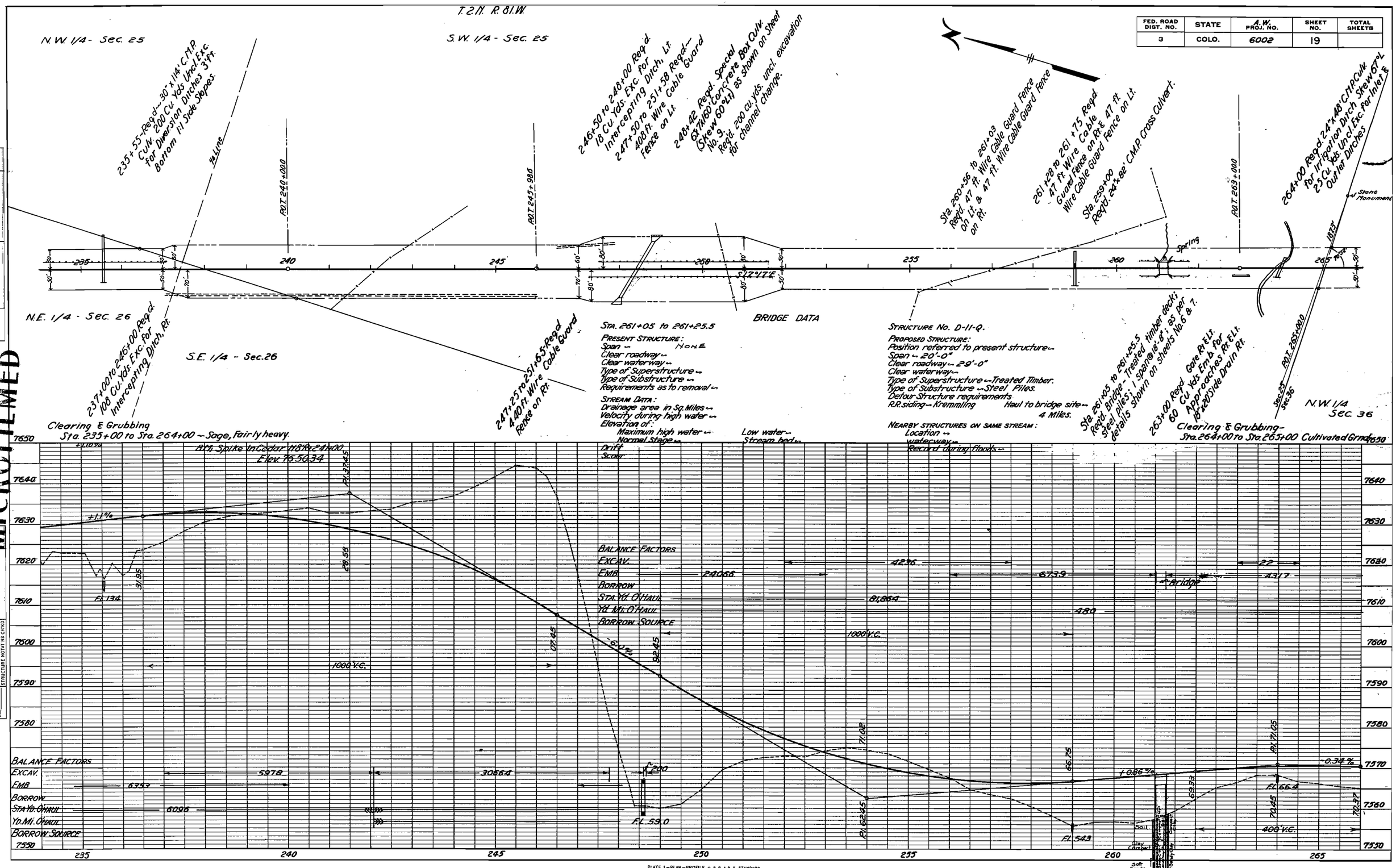


PLATE I — PLAN — PROFILE O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK

FED. ROAD DIST. NO.	STATE	A.W. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	6002	20	

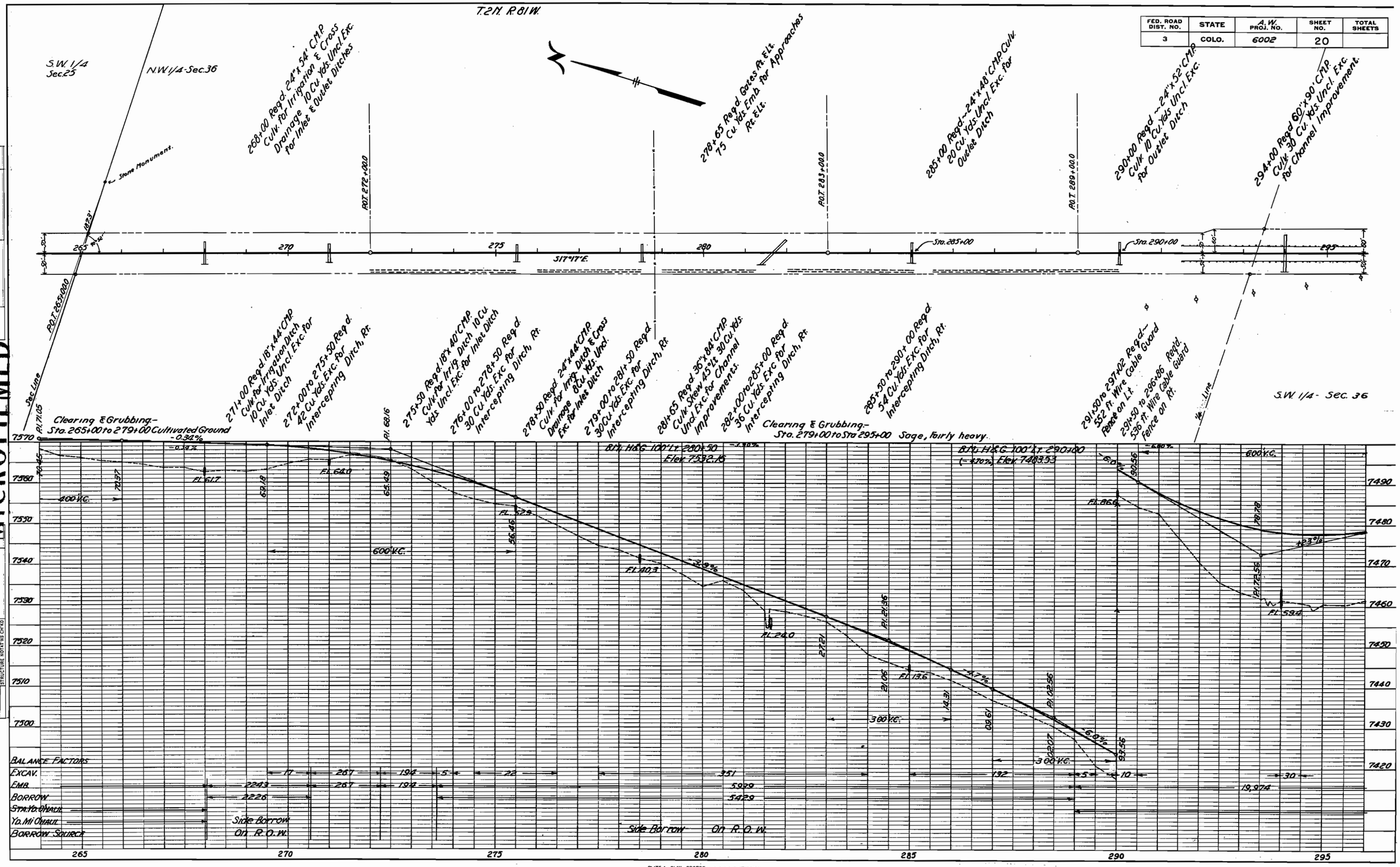


PLATE 1—PLAN—PROFILE O.P.R. & R.R. STANDARD
KEUFFEL & ESSER CO., NEW YORK

FED. ROAD DIST. NO.	STATE	A.W. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	6002	21	

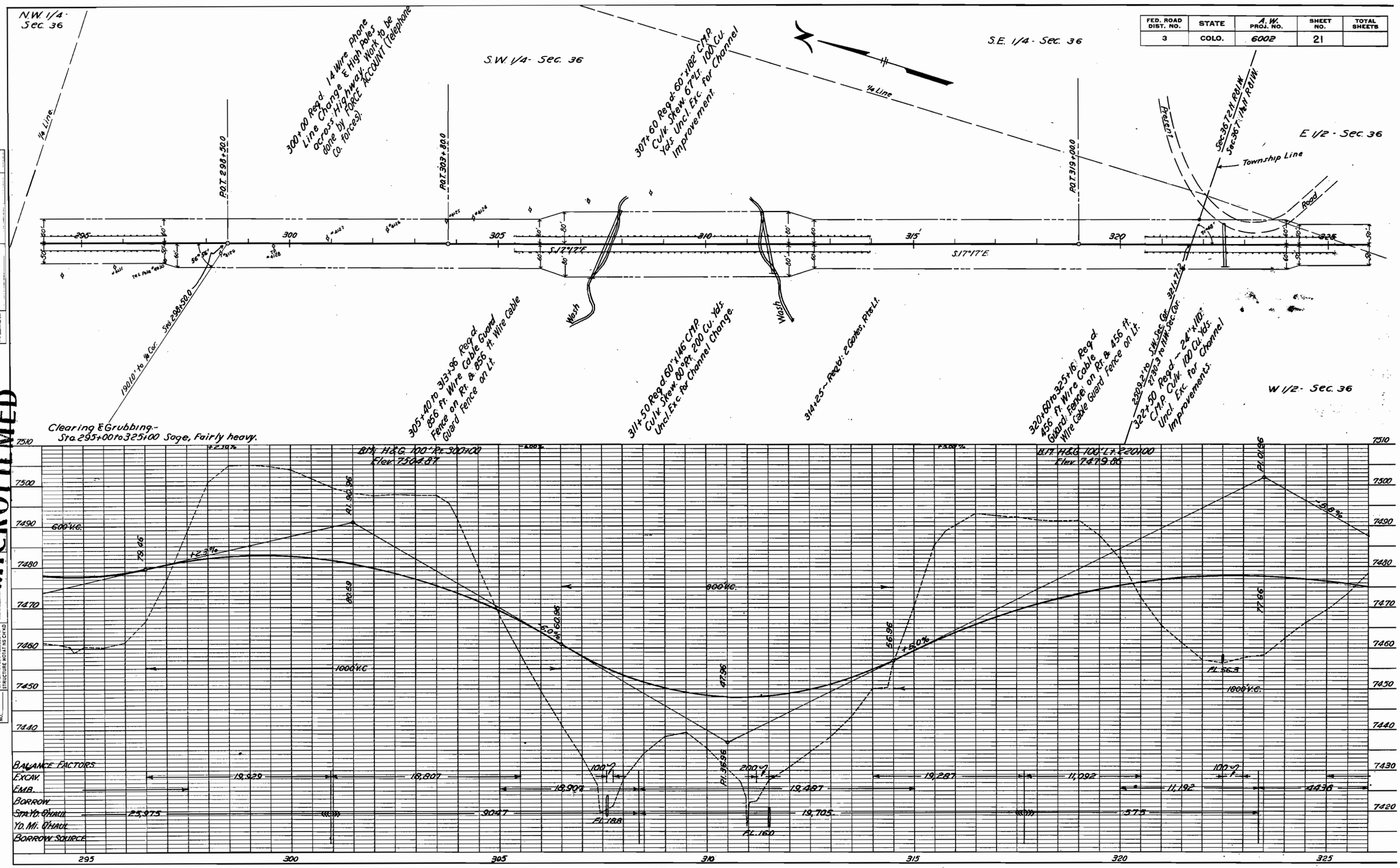


PLATE I — PLAN — PROFILE O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK

MICROFILMED

FED. ROAD DIST. NO.	STATE	A.W. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	6002	22	

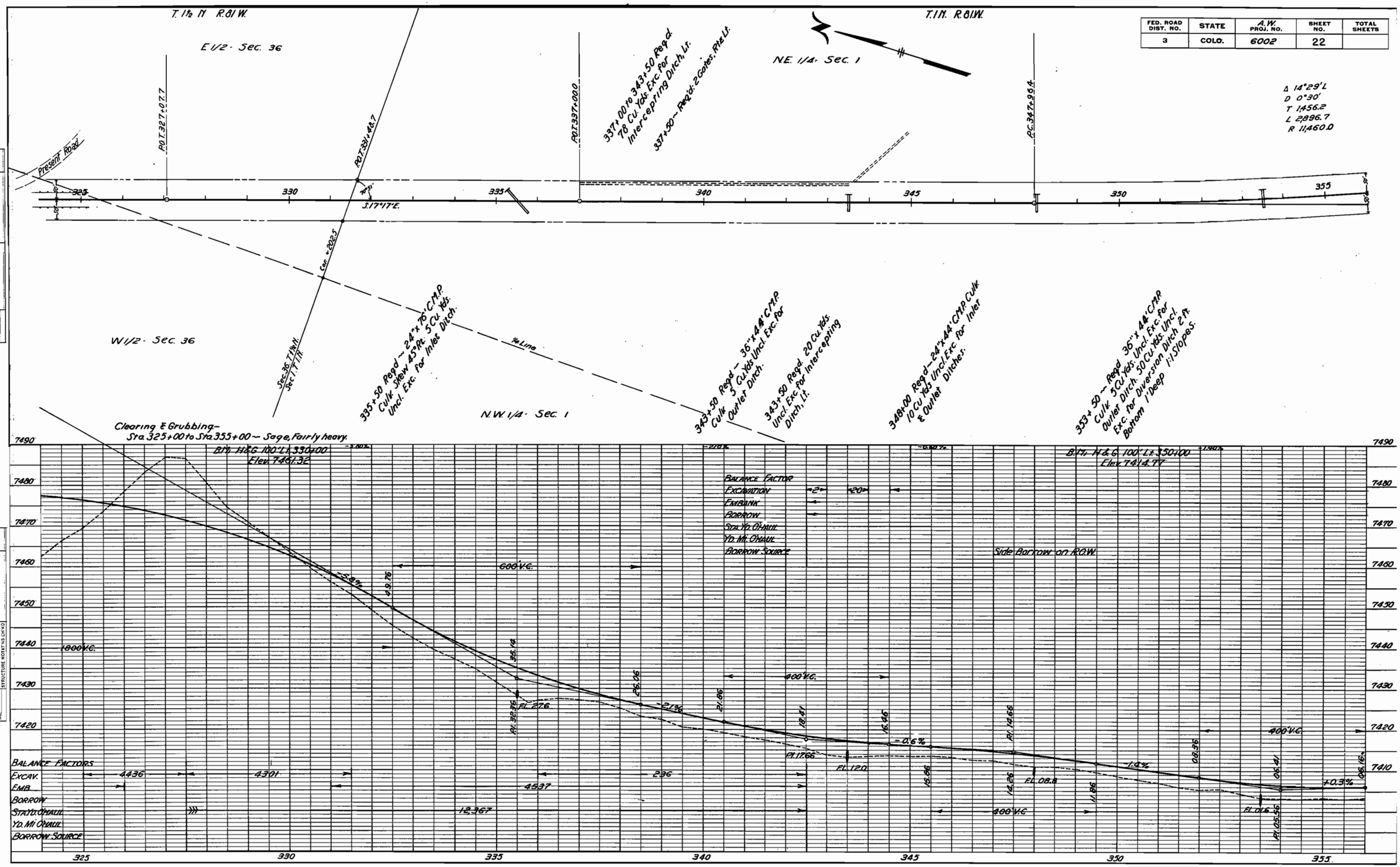


PLATE I — PLAN — PROFILE O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK

FED. ROAD DIST. NO.	STATE	A.W. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	6002	23	

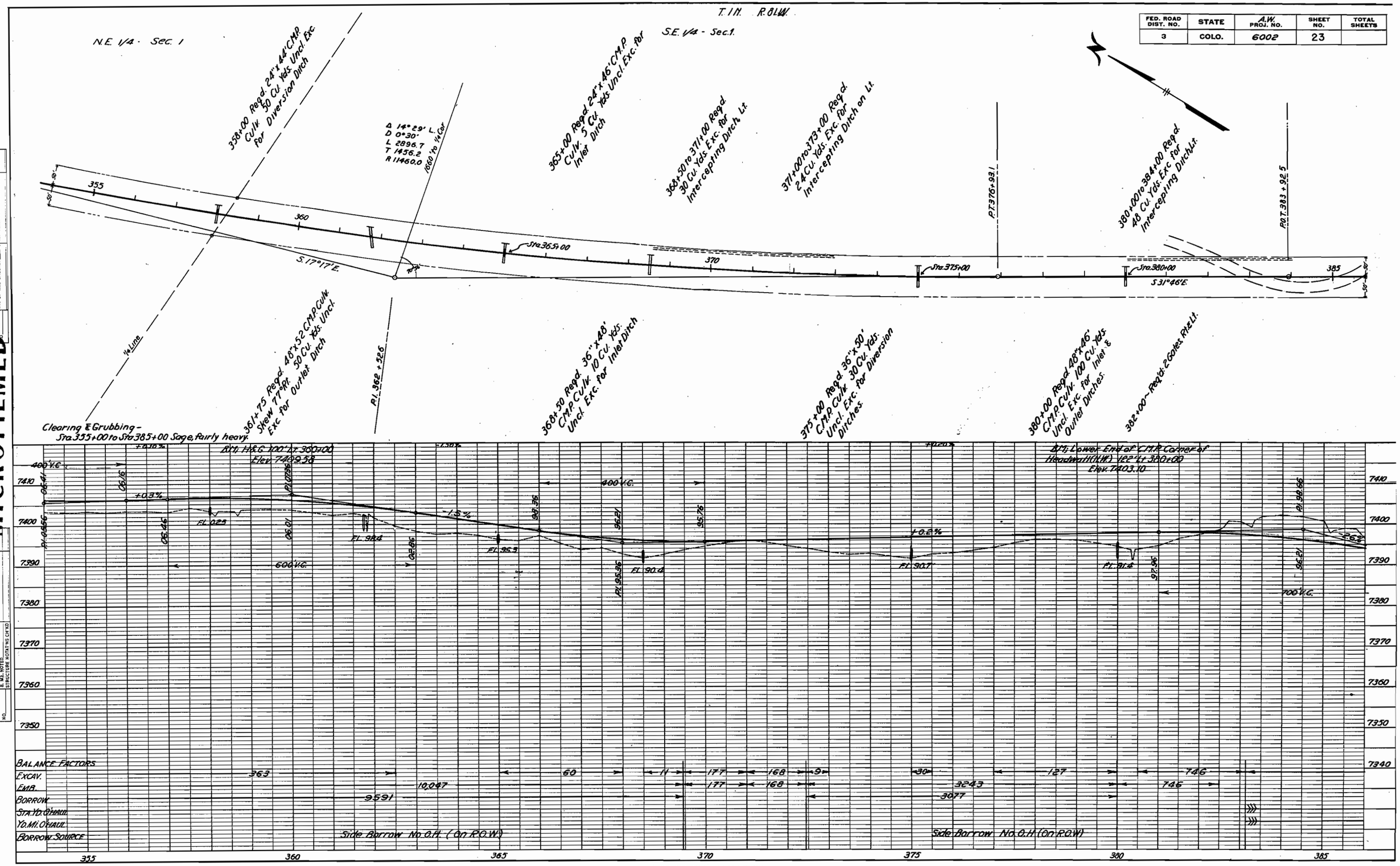


PLATE 1—PLAN—PROFILE O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK

MICROFILMED

FED. ROAD DIST. NO.	STATE	A.W. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	6002	24	

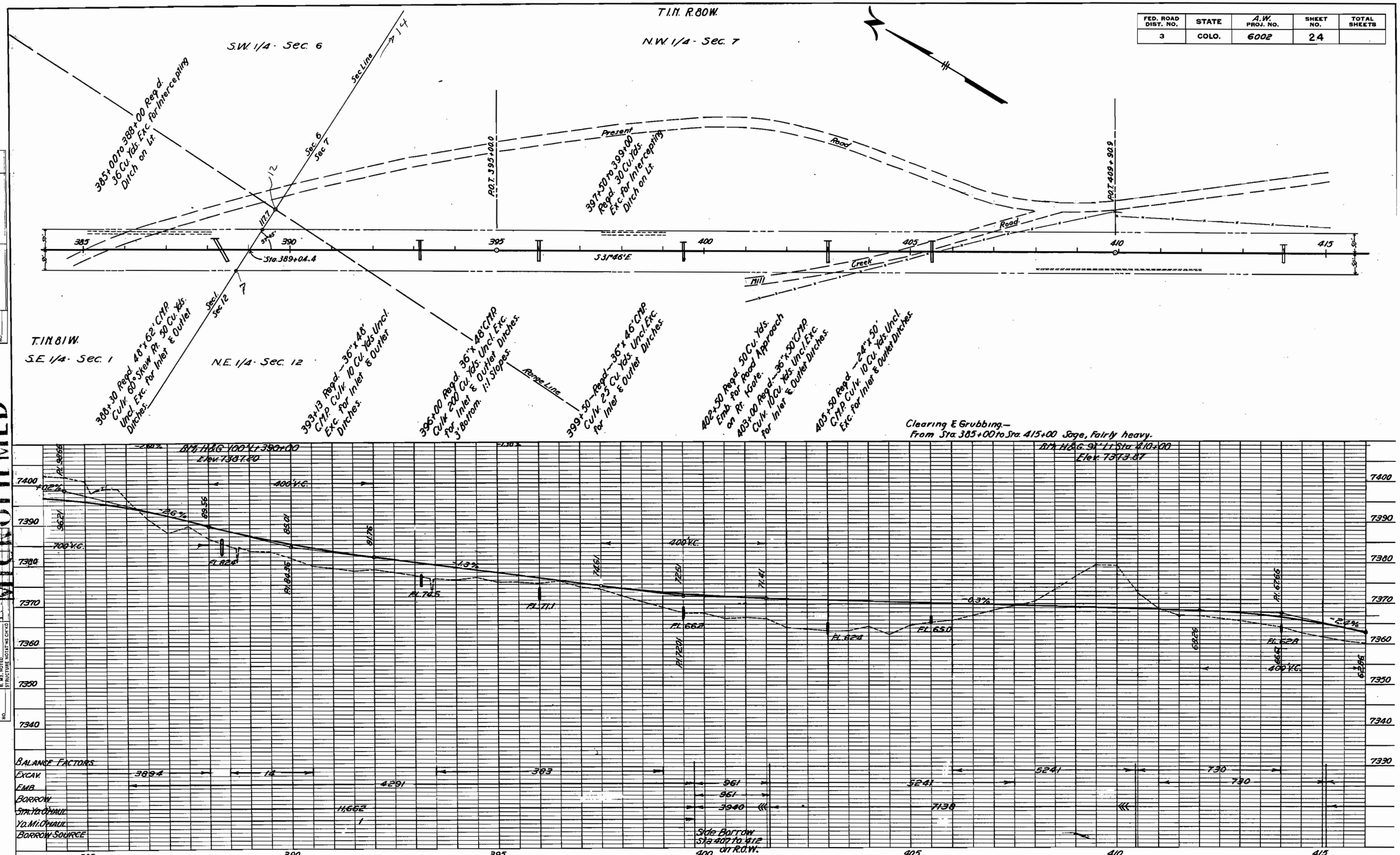


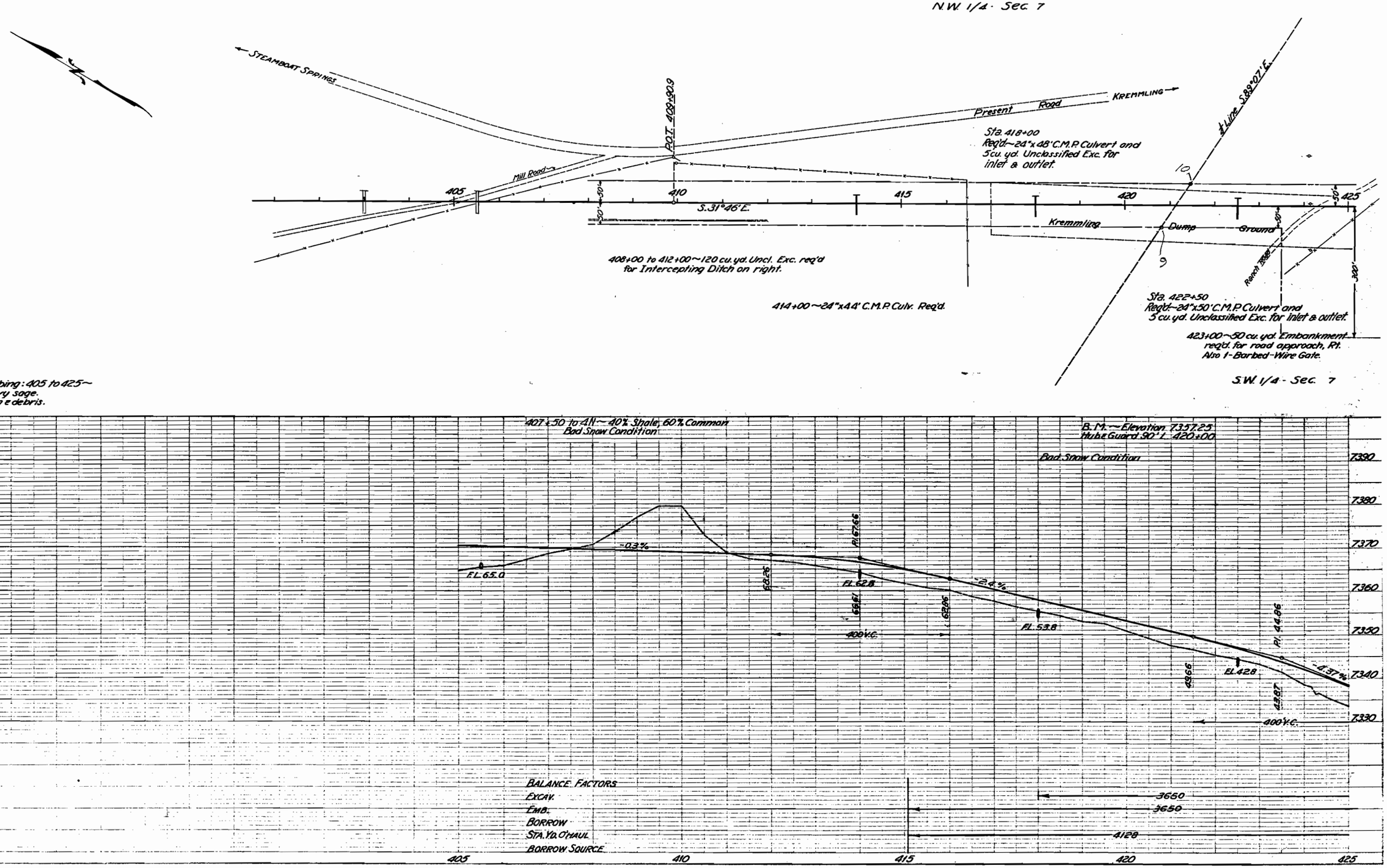
PLATE I—PLAN—PROFILE C. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO. NEW YORK

T. 1 N., R 80 W.

S½ of NW¼, Sec. 7
VACANT.

ROAD NO.	STATE	A.W. PROJ. NO.	SHEET NO.	TOTAL SHEETS
7	COLO	6002	25	

N.W. 1/4 · Sec. 7



Clearing & Grubbing: 405 to 425~
Moderately heavy sage.
417 to 426~Trash & debris.

FED. AID PROJ. NO.	STATE	A.W.	SHEET NO.	TOTAL SHEETS
	COLO.	6002	26	

T. 1 N., R. 80 W.

N.W. 1/4 - Sec. 7

Sta. 441+11 to 441+58
Req'd. 47 ft. Wire Cable Guard Fence, Lt.
& 47 " " " " " , Rt.

Sta. 442+79 to 443+26
Req'd. 47 ft. Wire Cable Guard Fence, Lt.
& 47 " " " " " , Rt.

Sta. 441+60 to 442+76.5
Reqd. Treated Timber Bridge, 5 spans @ 23' as per details shown on sheet no. 8.
Reqd. 3500 cu. yds. uncl. excavation for channel improvement. Excavated material to be used in roadway embankment.
BRIDGE DATA ON SHEET No. 27.

W½ of SE¼, Sec. 7
HEINI ESTATE.

445+50 ~ 100 cu. yd. Uncl. Exc., 2-18"x20' C.M.P. Side Drains, & 2. Barbed Wire Gates req'd for Approaches, Rt. & Lt.

S.E. 1/4 - Sec. 7

448+20 ~ 50 cu. yd. Emb. & 2-18"x20' C.M.P. Side Drains req'd for Approaches, Rt. & Lt.

Δ 56°52' L.
D 5°30'
T 564.1'
L 1033.9'
R 1041.8'

P.T. 453+26.5

S.88°07'E.

℄ Line

Farm Telephone Line

Ranch Road

Dump Ground

431+00 to 434+00 ~ 50 cu. yd. Uncl. Exc. req'd. for drain ditches on left.

Overflow Stage

Channel excavation

P.C. 442+82.6

Old Culvert

436+50 ~ 100 cu. yd. Emb. and 2 barbed wire gates req'd for Approaches, Rt. & Lt.

432+50 ~ 36"x46' C.M.P. Culvert req'd.

437+50 to 438+00 ~ 50 cu. yd. Uncl. Exc. req'd for drain ditches, Rt. & Lt.

S.W. 1/4 - Sec. 7

E½ of SW¼ Sec. 7
HEINI ESTATE

439+50 ~ 48"x48' C.M.P. Culvert req'd, and 470 cu. yd. Uncl. Exc. for outlet

MUDDY CREEK

Clearing & Grubbing:
420 to 438 ~ Moderately heavy sage;
438 to 443 ~ Willows & light sage;
443 to 453+42 ~ very light sage.

S.88°58'E.

P.I. 448+56.7

34°06'

265.5' to Pt. Curve

House

Shed

Barn

SPRUCE ST.

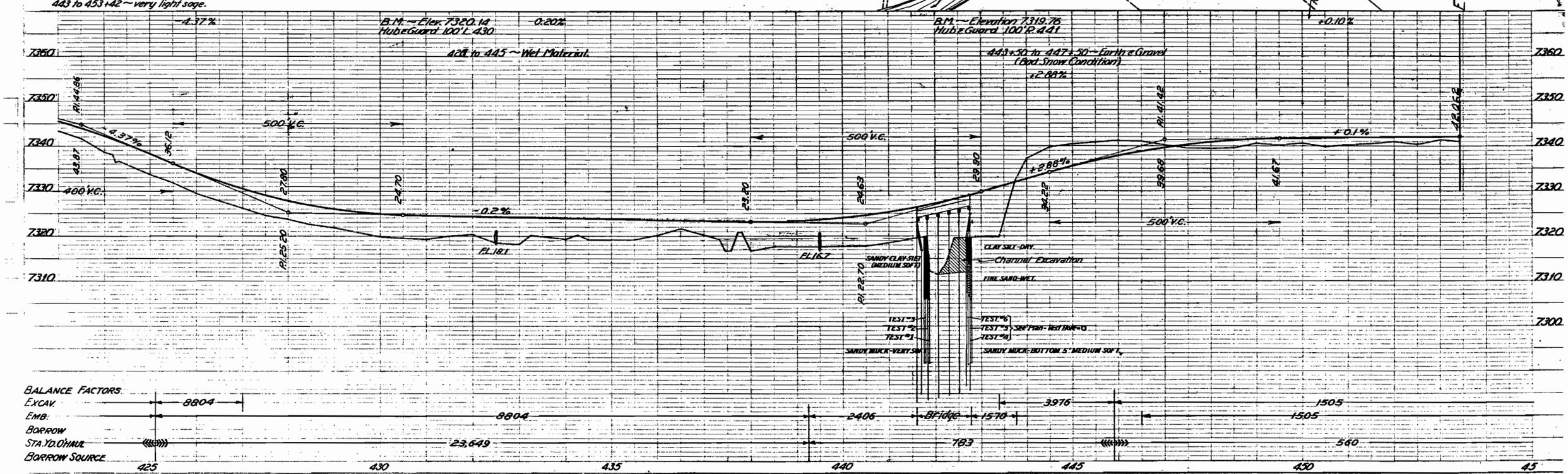
WILLOW ST.

PINE ST.

PARK AVE.

45

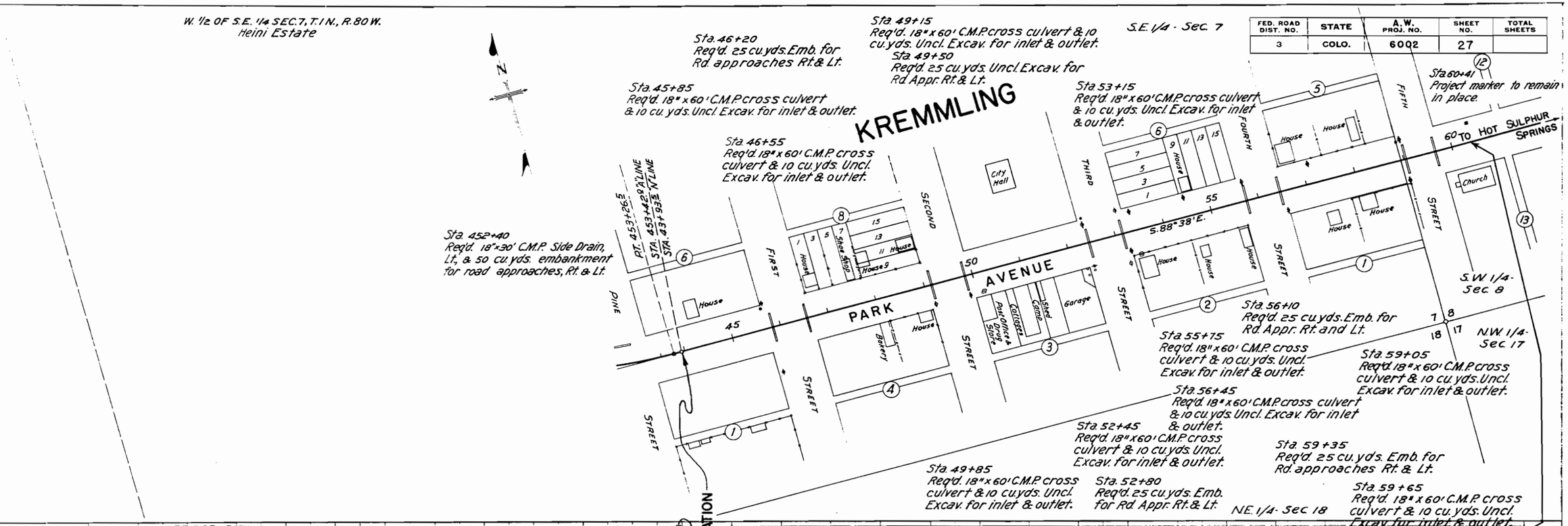
EQUATION { P.O.T. 453+42.0 "A" LINE = P.T. 43+93.5 "N" LINE }

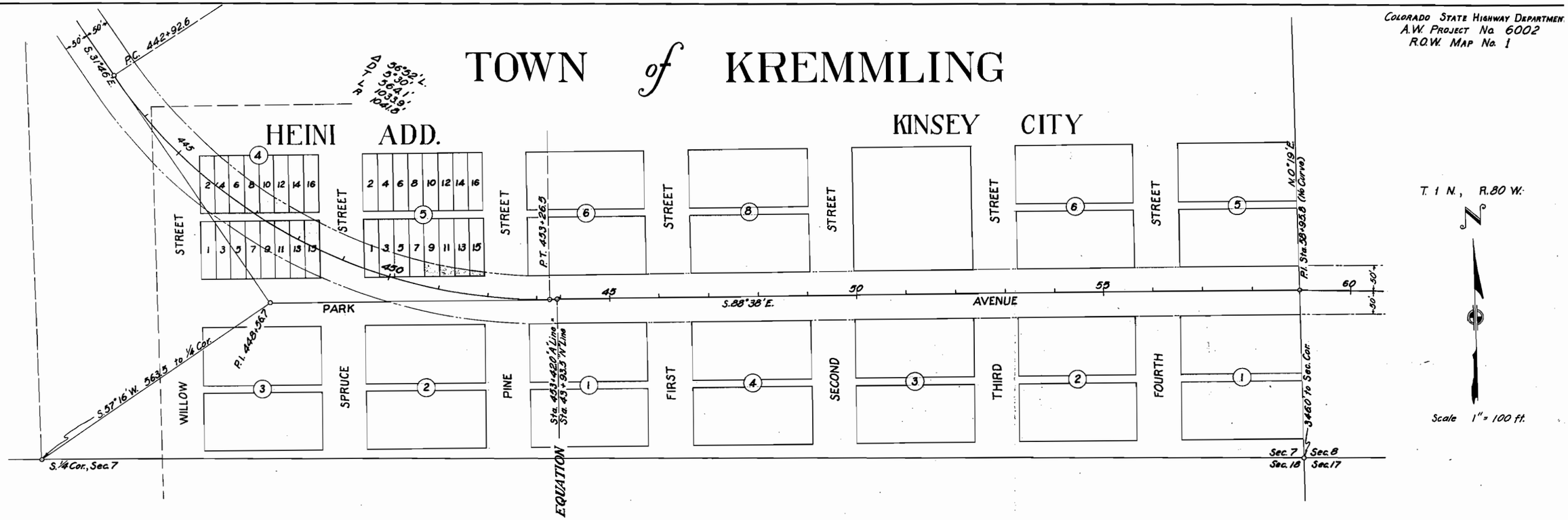


BALANCE FACTORS

| | | |

FED. ROAD DIST. NO.	STATE	A.W. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	6002	27	





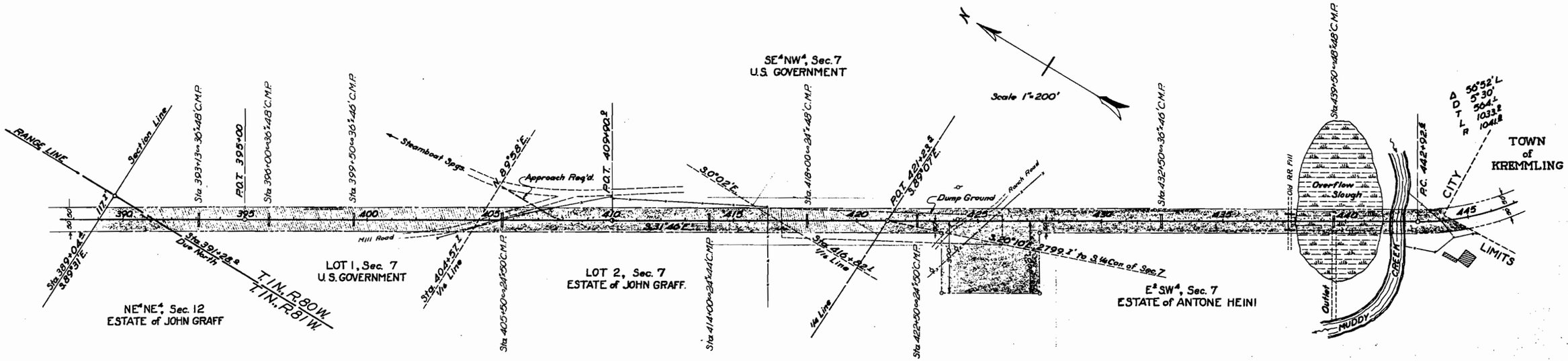
FRONTIER INVESTMENT CO.

Conveys all of the land within the Right-of-Way of that part of State Highway A. W. Project 6002 located in Lots 1, 2, 3, 7, 9, 11, 13, & 15, in Block 5 of the Heini Addition, and in Lots 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, & 15, in Block 4 of said Heini Addition to the Town of Kremmling, Colorado, all in the N.½ of the S.E. ¼ of Sec. 7, T. 1 N., R. 80 W. of the 6th P.M. Said Right-of-Way extends 50.0 feet on each side of the Centerline of the Highway, more particularly described as follows:

(A) Beginning at Centerline Station 449 + 45.9 of the Highway, a point on the West Boundary of said Lot 1, Block 5, whence the S.W. corner of said Lot 1 bears S. 1° 22' W. a distance of 18.8 feet, and the S.E. corner of said Sec. 7 bears S. 76° 18' E. a distance of 1941.8 feet; thence along said West Boundary of Lot 1, N. 1° 22' E. for 53.7 feet, to the northerly Right-of-Way line of the Highway; thence along said R.O.W. line from a tangent bearing S. 86° 38' E. on a curve to the left with a radius of 991.8 feet; for 248.9 feet, to the East Boundary of said Lot 15, Block 5; thence along said East Boundary of Lot 15, S. 1° 22' W. for 8.8 feet to the South Boundary of said Block 5; thence along said South Boundary, N. 88°38' W. for 240.0 feet to the West Boundary of said Block 5; thence along said West Boundary N. 1° 22' E, for 18.8 feet, to the point of beginning.

(B) Beginning at Centerline Station 448 + 47.6 of the Highway, a point on the East Boundary of Lot 15, Block 4, whence the S.E. corner of said Lot 15 bears S. 1° 22' W. a distance of 58.1 feet and the S.E. corner of said Sec. 7 bears S. 75° 46' E. for 2037.8 feet; thence along said East Boundary of Lot 15 Block 4, S. 1° 22' W. for 55.4 feet to the Southerly R.O.W. line of the Highway; thence along said R.O.W. line from a tangent bearing N. 60° 51' W., on a curve to the right with a radius of 1091.8 feet for 285.5 feet to the West Boundary forsaid Block 4; thence N. 1°22' E. for 100.2 feet along said West Boundary to the North Boundary of said Block 4; thence S. 88° 38' E. along said North Boundary of said Block 4 for 37.2 feet to the Northerly R.O.W. line of the Highway; thence along said R.O.W. line froma tangent bearing S. 46° 31' E. on a curve to the left with a radius of 991.8 feet for 248.0 feet to the East Boundary of said Block 4; thence S. 1° 22' W. along said East Boundary for 56.2 feet to the point of beginning.

Said Right-of-Way contains 8,488 sq. feet of land described in part (A) and 28,792 sq. feet described in part (B) of which 2,928 sq. feet are contained in the alley leaving a remainder of 25, 864 sq. feet in part (B). Total land to be acquired: 34,352 sq. feet, or 0. 789 acres all uncultivated.



ESTATE OF JOHN GRAFF

Conveys all of the land within the Right-of-Way of the Highway. Said Highway is located in (a) the N.E.¼ N.E.¼ Sec. 12, T. 1N. R.81W. of the sixth P.M. and in (b) Lot 2, of Sec. 7, T. 1N. R.80W. of the sixth P.M. Said Right-of-Way extends 50.0 feet on each side of the centerline of the Highway, and more particularly described as follows:

(a) Beginning at centerline station 389/04.4 , a point on the north section line of said section 12, T. 1N. R.81W. 6th P.M. whence the N.E. corner of said section 12 bears S. 89°31'E. a distance of 117.7 feet; thence along said section line S.89°31'E. for 59.1 feet to the easterly Right-of-Way line of the Highway; thence S.31°46'W. for 111.4 feet to the east range line of said R. 81W.; thence along said range line due south for 190.0 feet to the westerly Right-of-Way line of the Highway; thence N.31°46'W. for 355.8 feet to the said north section line of section 12; thence along said section line S.89°31'E. for 59.1 feet to the point of beginning.

(b) Beginning at centerline station 404/57.7, a point on the north one sixteenth line of said section 7, T.1N.R.80W. of the 6th P.M. whence the N.W. corner of said Sec. 7 bears N. 27°57'W. a distance of 1495.6 feet; thence along said one sixteenth line N.89°58'E. for 58.8 feet to the easterly Right-of-Way line of the Highway; thence S.31°46'E. for 1112.6 feet to the west one-sixteenth line of said section 7; thence along said one-sixteenth line S. 0°02'E. for 190.0 feet to the westerly Right-of-Way line of the Highway; thence N. 31°46'W. for 1336.2 feet to the said north one-sixteenth line of said section 7; thence along said one-sixteenth line N.89°58'E. for 58.8 feet to the point of beginning.

Said Right-of-Way contains in (a) 0.513 acres and in (b) 2.511 acres giving a total of 3.024 acres, of which 0.202 acres are contained in the right of way of the Mill Creek County Road, leaving a balance of 3.123 acres of unsultivated land to be acquired.

U.S. GOVERNMENT

Conveys all of the land within the Right-of-Way of the Highway. Said Highway is Located in (a) Lot 1, and (b) S.½-½ N.W.¼ of section 7 T.1N. R.80W. of the 6th P.M. Said Right-of-Way extends 50.0 feet on each side of the center line of the Highway, and more particularly described as follows:

(a) Beginning at centerline station 404/ 57.7 a point on the north one-sixteenth line of said section 7, whence the N.W. corner of said section 7 bears N.27°57'W. a distance of 1495.6 feet; thence along said one-sixteenth line S.89°58'W. for 58.8 feet to the westerly Right-of-Way line of the Highway; thence N. 31°46'W. for 1212.0 feet to the west range line of said R.80W. 6th P.M.; thence along said range line due north for 190.0 feet to the easterly Right-of-Way line of the Highway; thence S. 31° 46'E. for 1441.4 feet to the north one-sixteenth of said section 7; thence along said one-sixteenth line S. 89°58'W. for 58.8 feet to the point of beginning.

(b) Beginning at center line station 421/23.5 a point on the east and west ½ line of said section 7, whence the S.¼ corner of said section 7 bears S.20°10'E. a distance of 2799.7 feet; thence along said ½ line N.89°07'W. for 59.4 feet to the westerly Right-of-Way line of the Highway; thence N. 31°46'W. for 323.5 feet to the west one-sixteenth line of said section 7; thence along said one-sixteenth line N.0°02'W. for 190.0 feet to the easterly Right-of-Way line of the Highway; thence S.31°46'E. for 554.5 feet to the said east and west ½ line of said section 7; thence along said ½ line N. 89°07'W. for 59.4 feet to the point of beginning.

Said Right-of-Way contains in (a) 3.053 acres and in (b) 1.013 acres giving a total of 4.066 acres of which 0.154 acres are contained in the Right-of-Way of the Mill Creek County Road, leaving 3.912 acres of unsultivated land to be acquired.

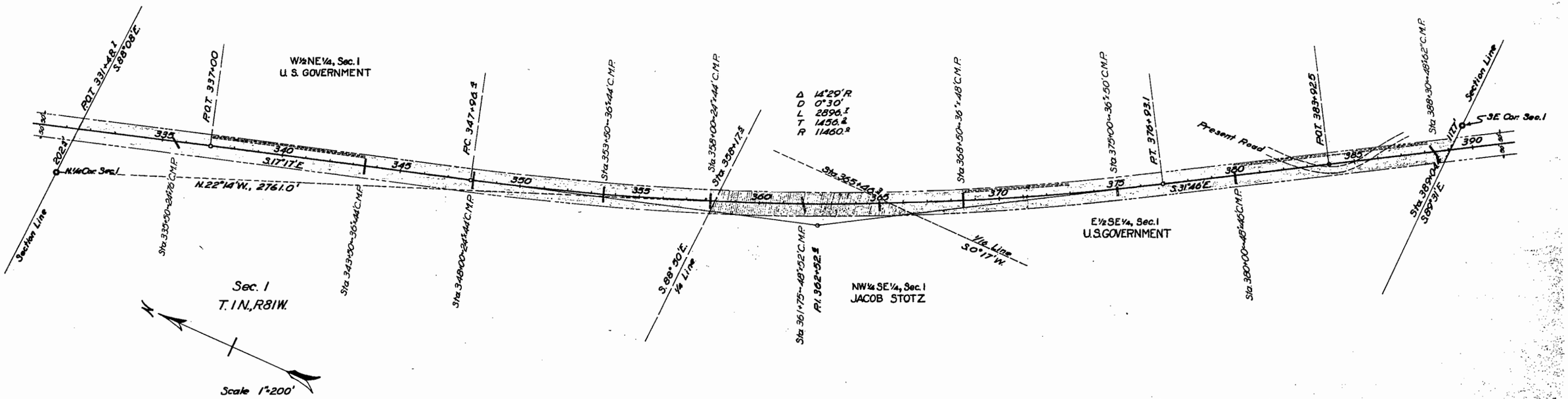
ESTATE OF ANTONE HEINI

Conveys all of the land within the Right-of-Way of the Highway. Said Highway is located in the E.½ S.W.¼ Sec. 7, T.1N. R.80W. of the 6th P.M. Said Right-of-Way extends 50.0 feet on each side of the center line of the Highway except where otherwise shown and noted and more particularly described as follows:-

Beginning at centerline station 421/23.5, a point on the east and west ½ line of said Sec. 7, whence the south ¼ corner of said section 7 bears S.20°10'E. a distance of 2799.7 feet; thence along said ½ line S.89°07'E. for 59.4 feet to the easterly Right-of-Way line the Highway; thence S.31° 46'E. for 2137.1 feet; thence on a curve to the left with a radius of 991.8 feet for 125.0 feet; to the north boundary of the Town Of Kremmling; thence along said boundary line N.88°38'W. for 31.5 feet to the northwest corner of the city limits of the Town Of Kremmling; thence along the westerly boundary of the Town Of Kremmling S.1°22'W. for 35.0 feet to center line station 444/42.5 of the Highway; thence along the same boundary line S.1°22'W. for 38.8 feet to the westerly Right-of-Way line of the Highway; thence from a tangent bearing N. 48°08'W. on a curve to the right with a radius of 1061.8 feet for 197.5 feet; thence N. 31°46'W. for 1548.4 feet; thence S. 58°14'W. for 250.0 feet; thence N.31°46'W. for 400.0 feet; thence N.58°14'E. for 250.0 feet; thence N. 31°46'W. for 256.5 feet to the said east and west ½ line of said section 7; thence along said ½ line S.89°07'E. for 59.4 feet to the point of beginning.

Said Right-of-Way contains 7.615 acres of unsultivated land, all of which is to be acquired.

COLORADO STATE HIGHWAY DEPARTMENT
A.W. PROJECT № 6002
RIGHT-OF-WAY MAP № 2.



JACOB STOTZ.

Conveys all of the land situated within the Right-of-Way of the Highway; said Highway is located in the N.W.¼ of the S.E.¼ of Sec. 1, T. 1N., R. 81W. of the 6th P.M. Said Right-of-Way extends 50.0 feet on each side of the centerline of the Highway, more particularly described as follows:

Beginning at centerline station 339+17.5, a point on the east and west ¼ line of said Sec. 1, whence the N. ¼ corner of said Section bears N. 22°14'W. a distance of 2761.0 Ft. Thence along said ¼ line S. 88°50'E. for 54.8 feet to the easterly Right-of-Way line of the Highway; thence from a tangent bearing S. 22°28'E. and on a curve to the left with a radius of 11,410.0 Ft. for 605.1 Ft. to the east one sixteenth line of said section 1; thence along said one sixteenth line S. 0°17'W. for 220.9 Ft. to the westerly Right-of-Way line of the Highway; thence from a tangent bearing N. 26°52'W. on a curve to the right with a radius of 11,510.0 Ft. for 828.8 Ft. to the said east and west ¼ line of said Sec. 1; thence along said ¼ line S. 88°50'E. for 54.6 Ft. to the point of beginning.

Said Right-of-Way contains 1.674 acres of uncultivated land, all of which is to be acquired.

U.S. GOVERNMENT

Conveys all of the land within the Right-of-Way of the Highway. Said Highway is located in (a) W.½ N.E.¼ of Sec. 1, and (b) E.½ S.E.¼ of Sec. 1, T. 1N. R. 81W. of the 6th P.M. Said Right-of-Way extends 50.0 Ft. on each side of the centerline of the Highway and more particularly described as follows:

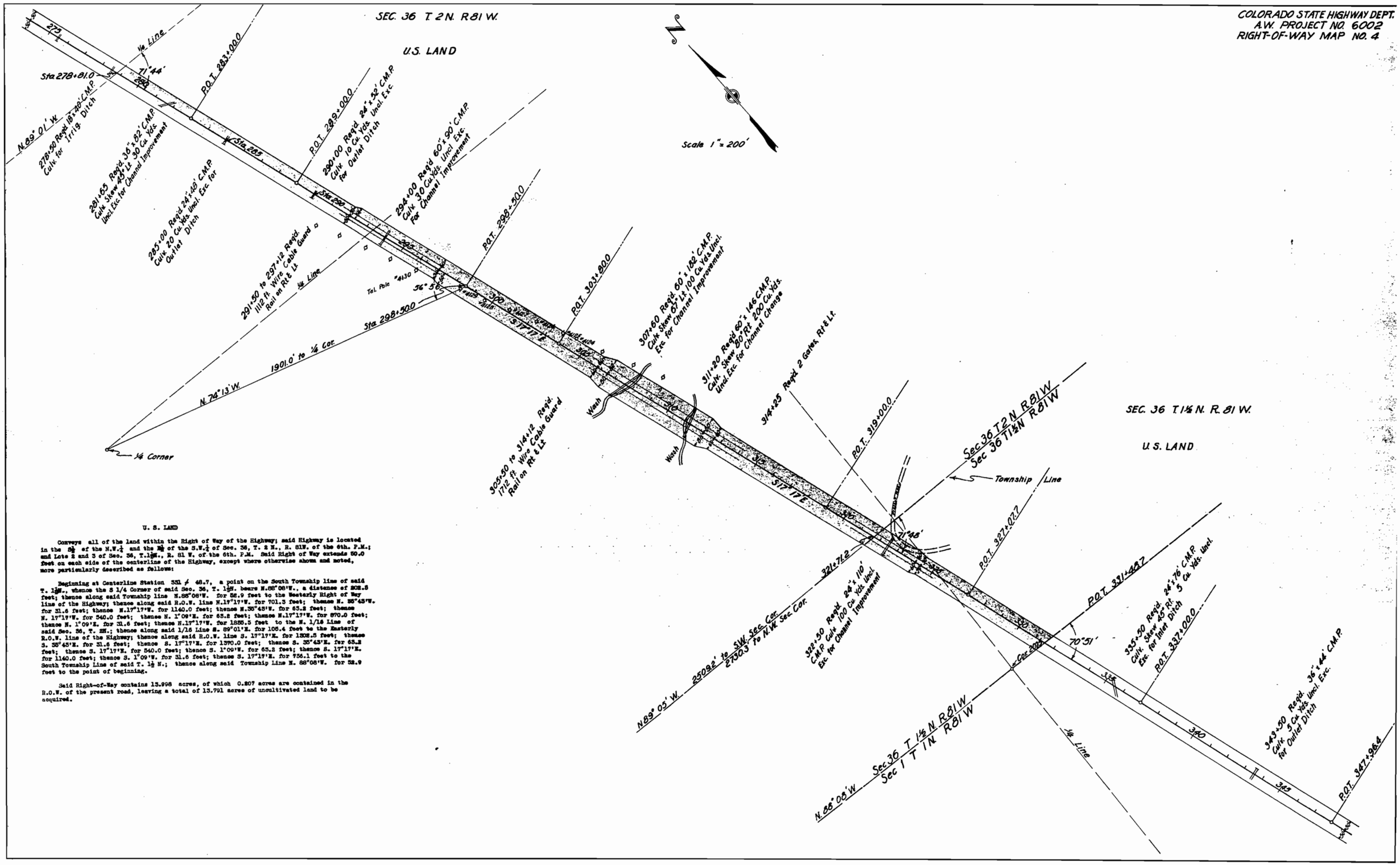
(a) Beginning at centerline station 331/48.7, a point on the north section line of said section 1, whence the N. ¼ corner of said section 1 bears N.88°08'W. a distance of 202.5 feet; thence along said section S. 88°08'E. for 58.9 feet to the easterly Right-of-Way line of thehHighway; thence S. 17°17'E. for 1630.3 feet; thence on a curve to the leftwith a radius of 11,410.0 feet for 1038.2 feet to the east and west ¼ line of said section 1 ; thence along said ¼ line N.88°50'W. for 109.1 feet to the westerly Right-of-Way line of the Highway; thence from a tangent bearing of N. 22°17'W. and on a curve to the right with a radius of 11,510.0 feet for 1003.3 feet; thence N.17°17'W. for 1665.1 feet to the north section line of said section 1; thence along said section line S.88°08'E. for 58.9 feet to the point of beginning.

(b) Beginning at centerline station 389/04.4 a point on the south section line of said section 1, whence the S.E. corner of said section 1 bears S.89°31'E. a distance of 117.7 feet; thence along said section line N. 89°31'W. for 59.1 feet to the westerly Right-of-Way line of the Highway; thence N. 31°46'E. for 1179.7 feet; thence on a curve to the right with a radius of 11,510.0 feet for 1048.0 feet to the east one sixteenth line of said section 1 ; thence along said one sixteenth line N. 0°17'E. for 220.9 feet to the easterly Right-of-Way line of the Highway; thence from a tangent bearing of S.28°31'E. on a curve to the left with a radius of 11,410.0 feet for 1244.6 feet; thence S. 31°46'E. for 1248.9 feet to the said south section line of section 1 ; thence along said section line N. 89°31'W. for 59.1 feet to the point of beginning.

Said Right-of-Way contains in (a) 6.127 acres and in (b) 5.412 acres giving a total of 11.539 acres of which 0.620 acres are contained in the right of way of the present road, leaving 10.919 acres of uncultivated land to be acquired.

COLORADO STATE HIGHWAY DEPT.
A.W. PROJECT № 6002
RIGHT-OF-WAY MAP № 3.

COLORADO STATE HIGHWAY DEPT.
A.W. PROJECT NO. 6002
RIGHT-OF-WAY MAP NO. 4

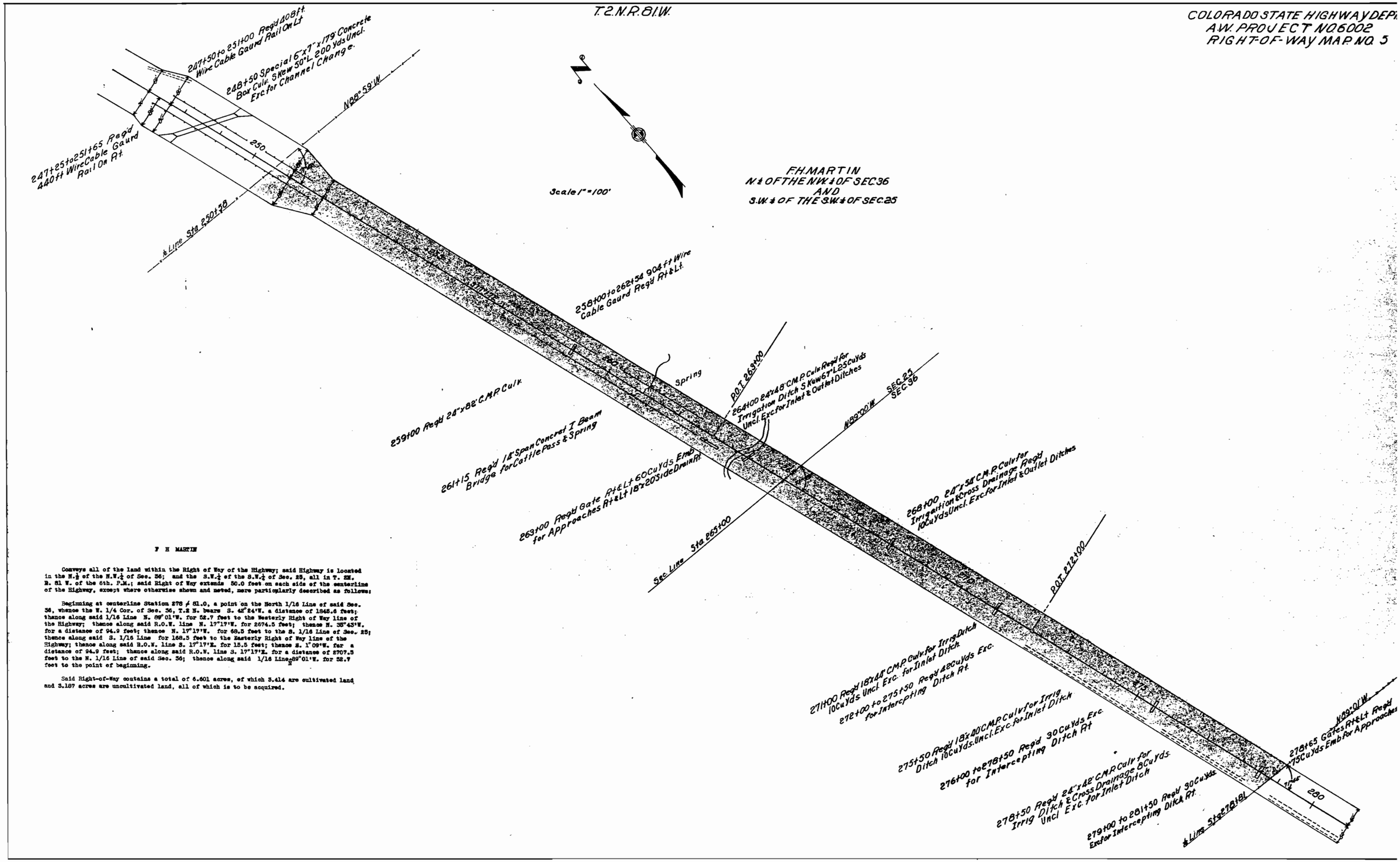


U. S. LAND

Conveys all of the land within the Right of Way of the Highway; said Highway is located in the S½ of the N.W.¼ and the N½ of the S.W.¼ of Sec. 36, T. 2 N., R. 81W. of the 6th. P.M.; and Lots 2 and 3 of Sec. 36, T.1½N., R. 81 W. of the 6th. P.M. Said Right of Way extends 50.0 feet on each side of the centerline of the Highway, except where otherwise shown and noted, more particularly described as follows:

Beginning at Centerline Station 331 + 48.7, a point on the South Township line of said T. 1½N., whence the S 1/4 Corner of said Sec. 36, T. 1½N. bears N.88°08'W., a distance of 2028.5 feet; thence along said Township line N.88°08'W. for 52.9 feet to the Westerly Right of Way line of the Highway; thence along said R.O.W. line N.17°17'W. for 701.3 feet; thence N. 35°45'W. for 31.6 feet; thence N.17°17'W. for 1140.0 feet; thence N.35°45'W. for 63.2 feet; thence N. 17°17'W. for 540.0 feet; thence N. 1°09'E. for 63.2 feet; thence N.17°17'W. for 870.0 feet; thence N. 1°09'E. for 31.6 feet; thence N.17°17'W. for 1825.5 feet to the N. 1/16 Line of said Sec. 36, T. 2N.; thence along said 1/16 Line S. 89°01'E. for 106.4 feet to the Easterly R.O.W. line of the Highway; thence along said R.O.W. line S. 17°17'E. for 1328.5 feet; thence S. 35°45'E. for 31.6 feet; thence S. 17°17'E. for 1370.0 feet; thence S. 35°45'E. for 63.2 feet; thence S. 17°17'E. for 540.0 feet; thence S. 1°09'W. for 63.2 feet; thence S. 17°17'E. for 1140.0 feet; thence S. 1°09'W. for 31.6 feet; thence S. 17°17'E. for 756.1 feet to the South Township Line of said T. 1½ N.; thence along said Township Line N. 88°08'W. for 52.9 feet to the point of beginning.

Said Right-of-Way contains 13.998 acres, of which 0.207 acres are contained in the R.O.W. of the present road, leaving a total of 13.791 acres of uncultivated land to be acquired.



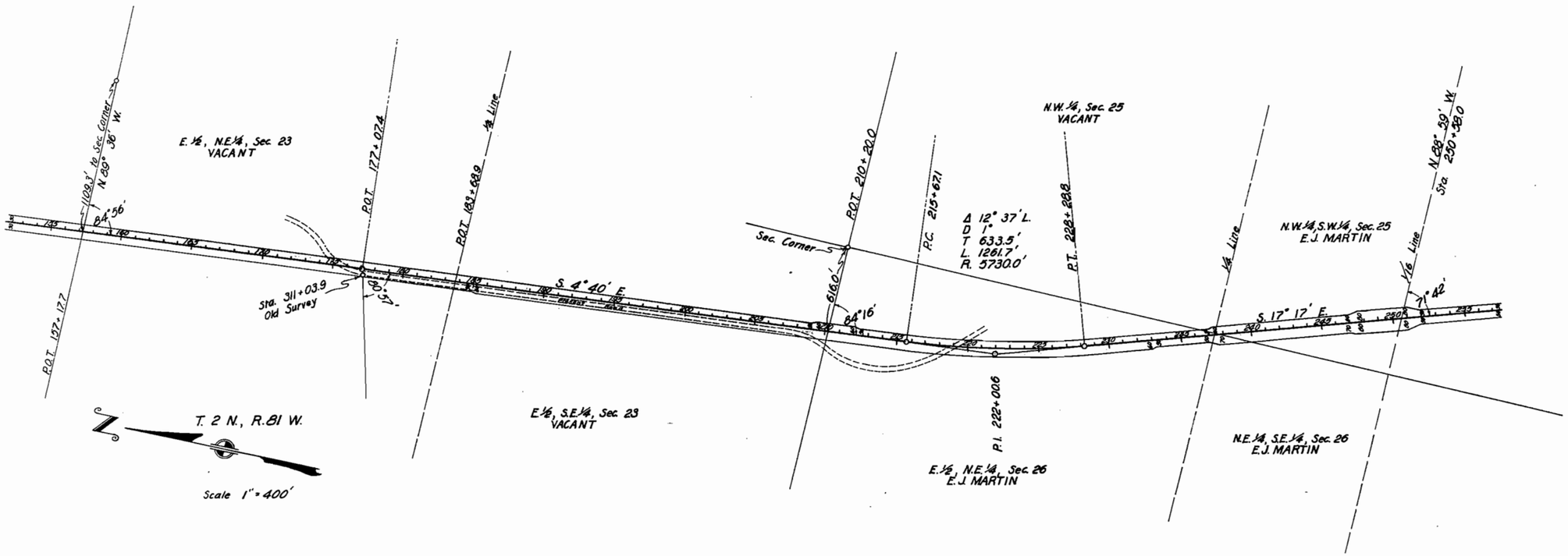
F H MARTIN

Conveys all of the land within the Right of Way of the Highway; said Highway is located in the N.½ of the N.W.¼ of Sec. 36; and the S.W.¼ of the S.W.¼ of Sec. 25, all in T. 2N. R. 81 W. of the 6th. P.M.; said Right of Way extends 50.0 feet on each side of the centerline of the Highway, except where otherwise shown and noted, more particularly described as follows:

Beginning at centerline Station 278 + 81.0, a point on the North 1/16 Line of said Sec. 36, whence the W. 1/4 Cor. of Sec. 36, T.2 N. bears S. 42° 24' W. a distance of 1845.6 feet; thence along said 1/16 Line N. 89° 01' W. for 52.7 feet to the Westerly Right of Way line of the Highway; thence along said R.O.W. line N. 17° 17' W. for 2674.5 feet; thence N. 35° 43' W. for a distance of 94.9 feet; thence N. 17° 17' W. for 69.5 feet to the S. 1/16 Line of Sec. 25; thence along said S. 1/16 Line for 168.5 feet to the Easterly Right of Way line of the Highway; thence along said R.O.W. line S. 17° 17' E. for 15.5 feet; thence S. 1° 09' W. for a distance of 94.9 feet; thence along said R.O.W. line S. 17° 17' E. for a distance of 2707.5 feet to the N. 1/16 Line of said Sec. 36; thence along said 1/16 Line S 89° 01' W. for 52.7 feet to the point of beginning.

Said Right-of-Way contains a total of 6.601 acres, of which 3.414 are cultivated land and 3.187 acres are uncultivated land, all of which is to be acquired.

Colorado State Highway Dept.
A.W. Project No. 6002
Right-of-Way Map No. 6
Revised ~ Dec. 5, 1936



U. S. LAND

Conveys all of the land within the Right-of-Way of the Highway; said Highway is located, (a) in the E. ½ of the S.E. ¼, and the E. ½ of the N. E. ¼ of Sec. 23; and (b) in the N. W. ¼ of Sec. 25, all in T. 2 N., R. 81 W. of the 6 th. P.M.; said Right-of-Way extends for 50.0 feet on each side of the centerline of the Highway except where otherwise shown and noted, more particularly described as follows:

(a) Beginning at centerline Station 137 + 17.7, a point on the North Sec. line of said Sec. 23, whence the N. E. Sec. corner of said Sec. 23 bears S. 89° 36' E. a distance of 1109.3 feet; thence along said Sec. line S. 89° 36' E. for 50.2 feet to the Easterly Right-of-Way line of the Highway; thence along said R.O.W. line S. 4° 40' E. for 5177.8 feet; thence S. 23° 06' E. for 31.6 feet; thence S. 4° 40' E. for 96.0 feet; to the South Sec. line of said Sec. 23; thence along said Sec. line N. 88° 56' W. for 120.6 feet to the Westerly R.O.W. line of the Highway; thence along said R.O.W. line N. 4° 40' W. for 2484.0 feet; thenes N. 1° 09' E. for 31.6 feet; thence N. 4° 40' W. for 2786.7 feet to the North Sec. line of said Sec. 23; thence along said Sec. line S. 89° 36' E. for 50.2 feet to the point of beginning.

(b) Beginning at a point 50 feet left of Station 236 + 40.0, the intersection of the Easterly Right-of-Way line of the Highway and the West Sec. line of said Sec. 25; whence the N. W. Sec. corner of said Sec. 25 bears N. 1° 04' E. a distance of 2530.0 feet; thence along said R.O.W. line S. 17° 17' E. for 60.0 feet; thence S. 35° 43' E. for 31.6 feet; thence S. 17° 17' E. for 30.0 feet; thence N. 88° 56' W. for 45.0 feet to the West Sec. line of said Sec. 25; thence along said Sec. line N. 1° 04' E. for 110.0 feet to the point of beginning.

Said Right-of-Way contains 12.772 acres in (a) and 0.057 acres in (b), of which 4.725 acres are contained in the Right-of-Way of the Present Highway, leaving a total of 8.104 acres of uncultivated land to be acquired.

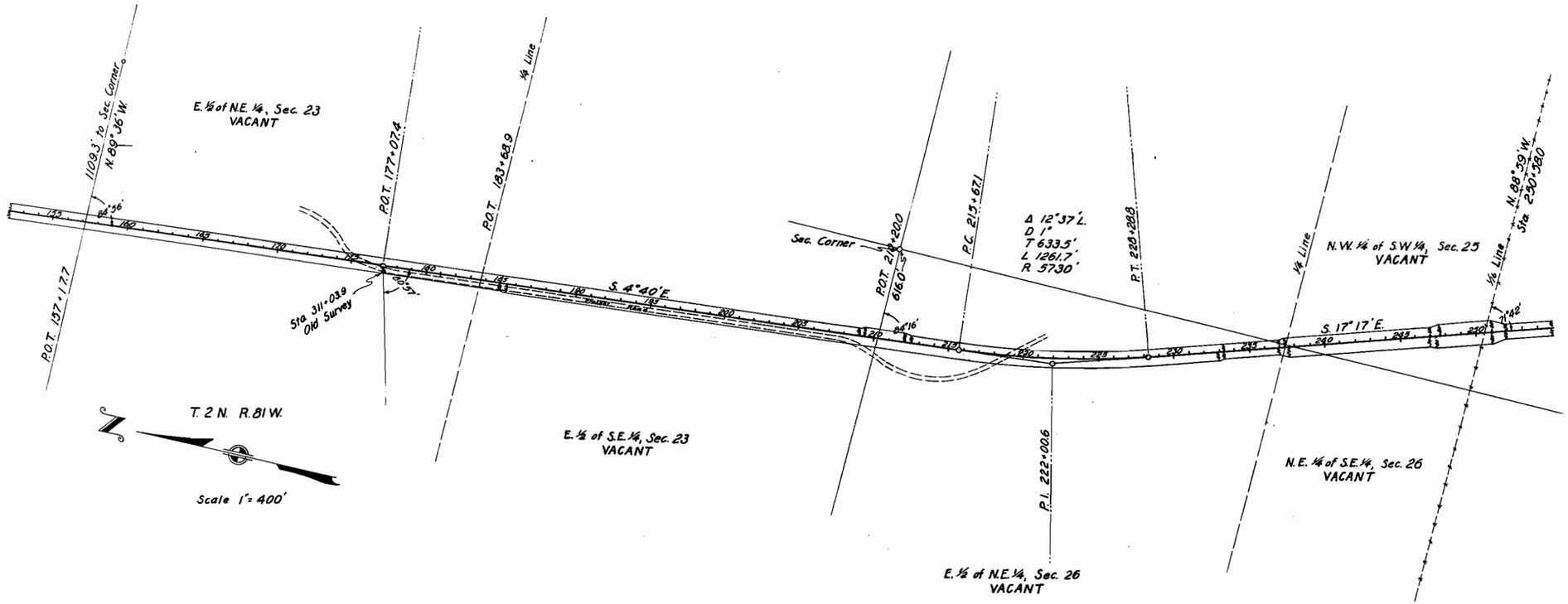
E. J. MARTIN

Conveys all of the land within the Right-of-Way of the Highway; said Highway is located in the N. W. ¼ of the S.W. ¼ of Sec. 25, and in the N.E. ¼ of the S. E. ¼ and the E. ½ of the N.E. ¼ of Sec. 26, all in T. 2 N., R. 81 W. of the 6 th. P.M.; said Right-of-Way extends for 50.0 feet on each side of the centerline of the Highway, except whereotherwise shown and noted, more particularly described as follows:

Beginning at centerline Station 210 + 20.0, a point onthe North Sec. line of said Sec. 26, whence the N.E. Sec. corner of said Sec 26 bears S. 88° 56' E. a distance of 616.0 feet; thence along said Sec. line S. 88° 56' E. for 60.3 feet to the Easterly Right-of-Way line of the Highway; thence along said R.O.W. line S. 4° 40' E. for 174.0 feet; thence S. 13° 46' W. for 31.6 feet; thence S. 4° 40' E. for 337.1 feet; thence on a curve to the left with a radius of 5680.0 feet for 1250.7 feet; thence S. 17° 17' E. for 811.2 feet to the East Sec. line of said Sec. 26; thence along said Sec. line S. 1° 04' W. for 110.0 feet to the E. ¼ corner of said Sec. 26; thence S. 88° 56' E. for 45.0 feet to the Easterly R.O.W. line of the Highway; thence along said R.O.W. line S. 17° 17' E. for 940.0 feet; thence S. 35° 43'.E. for 63.2 feet; thence S. 17° 17' E. for 324.5 feet to the South 1/16 line of Sec. 25; thence along said 1/16 line N. 88° 59' W. for 168.5 feet to the Easterly R.O.W. line of the Highway; thence along said R.O.W. line N. 17° 17' W. for 301.5 feet; thence N. 1° 09' E. for 31.6 feet; thence N. 17° 17' W. for 940.0 feet; thence N. 1° 09' E. for 63.2 feet;thence N. 17° 17' W. for 370.0 feet; thence N. 35° 43' W. for 31.6 feet; thence N. 17° 17' W. for 471.2 feet; thence on a curve to the right with a radius of 5790.0 feet for 1274.9 feet; thence N. 4° 40' W. for 553.1 feet to the North Sec. line of said Sec. 26; thence along said Sec. line S. 88° 56' E. for 60.3 feet to the point of beginning.

Said Right-of-Way contains 10.935 acres of which 0.273 acres are contained in the Right-of-Way of the Present Highway, leaving a total of 10.660 acres of uncultivated land to be acquired.

COLORADO STATE HIGHWAY DEPT.
A.W. PROJECT NO. 6002
RIGHT-OF-WAY MAP NO. 6



U. S. LAND

Conveys all of the land within the Right of Way of the Highway; said Highway is located in the N.W.¼ of the S.W.¼ of Sec. 25; the N.E.¼ of the S.E.¼ of Sec. 26; the E.½ of the N.E.¼ of Sec. 26, and the E.½ of the E.½ of Sec. 23, all in T.2 N., R.81 W. of the 6th. P.M.; said Right of Way extends 50.0 feet on each side of the centerline of the Highway, except where otherwise shown and noted, more particularly described as follows:

Beginning at centerline Station 157 + 17.7, a point on the North Sec. line of said Sec. 23, whence the N.E. Sec. Corner of said Sec. 23 bears S. 89°36'E. a distance of 1109.3 feet; thence along said Sec. line S. 89°36'E. for 50.2 feet to the Easterly R.O.W. line of the Highway; thence S. 4°40'E. for 5177.8 feet; thence S. 23°06'E. for 51.6 feet; thence S. 4°40'E. for 270.0 feet; thence S. 15°46'W. for 51.6 feet; thence S. 4°40'E. for 337.1 feet; thence on a curve to the left with a radius of 5680.0 feet for 1250.7 feet; thence S. 17°17'E. for 871.2 feet; thence S. 35°43'E. for 51.6 feet; thence S. 17°17'E. for 970.0 feet; thence S. 35°43'E. for 63.2 feet; thence S. 17°17'E. for 514.5 feet to the South 1/16 Line of Sec. 25; thence along said 1/16 line N.88°59'W. for 168.6 feet to the Westerly R.O.W. line of the Highway; thence N. 17°17'W. for 291.5 feet; thence N. 1°09'E. for 51.6 feet; thence N. 17°17'W. for 940.0 feet; thence N. 1°09'E. for 63.2 feet; thence N. 17°17'W. for 570.0 feet; thence N. 35°43'W. for 51.6 feet; thence N. 17°17'W. for 471.2 feet; thence on a curve to the right with a radius of 5790.0 feet, for 1274.9 feet; thence N. 4°40'W. for 3037.1 feet; thence N. 1°09'E. for 51.6 feet; thence N. 4°40'W. for 2786.7 feet to the North Sec. line of Sec. 23; thence along said Sec. line S. 89°36'E. for 50.2 feet to the point of beginning.

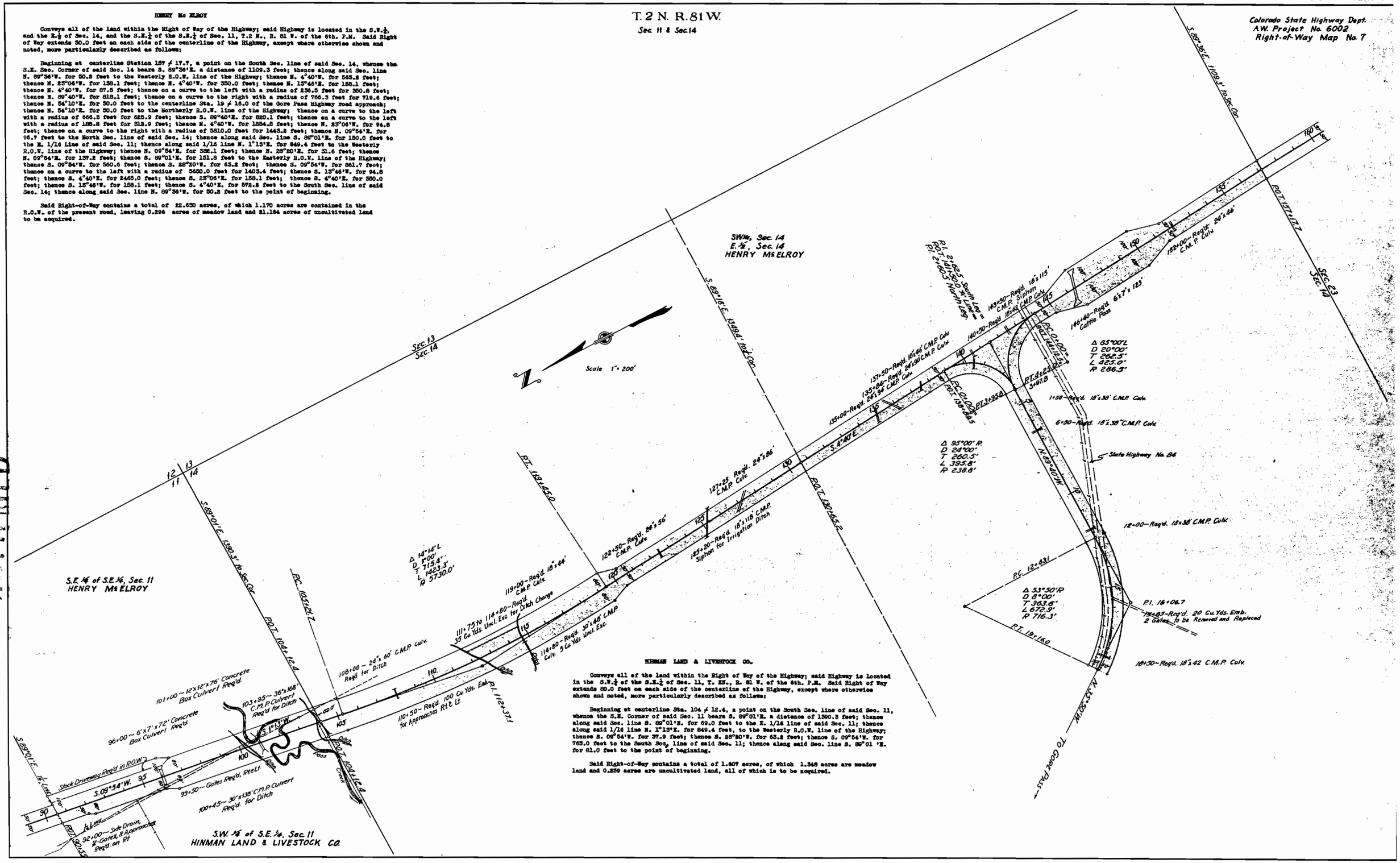
Said Right-of-Way contains 23.640 acres, of which 5.00 acres are contained in the Right of Way of the present Highway, leaving a total of 18.640 acres of uncultivated land to be acquired.

HENRY Mc ELROY

Conveys all of the land within the Right of Way of the Highway; said Highway is located in the S.W.¼, and the N.½ of Sec. 14, and the S.E.¼ of the S.E.¼ of Sec. 11, T.2 N., R. 81 W. of the 6th. P.M. Said Right of Way extends 50.0 feet on each side of the centerline of the Highway, except where otherwise shown and noted, more particularly described as follows:

Beginning at centerline Station 157 + 17.7, a point on the South Sec. line of said Sec. 14, whence the S.E. Sec. Corner of said Sec. 14 bears S. 89°56'E. a distance of 1109.3 feet; thence along said Sec. line N. 89°56'W. for 50.2 feet to the Westerly R.O.W. line of the Highway; thence N. 4°40'W. for 565.2 feet; thence N. 25°06'W. for 156.1 feet; thence N. 4°40'W. for 350.0 feet; thence N. 15°46'E. for 156.1 feet; thence N. 4°40'W. for 87.5 feet; thence on a curve to the left with a radius of 236.5 feet for 350.6 feet; thence N. 89°40'W. for 818.1 feet; thence on a curve to the right with a radius of 766.3 feet for 719.6 feet; thence N. 54°10'E. for 50.0 feet to the centerline Sta. 19 + 16.0 of the Gore Pass Highway road approach; thence N. 54°10'E. for 50.0 feet to the Northerly R.O.W. line of the Highway; thence on a curve to the left with a radius of 566.3 feet for 625.9 feet; thence S. 89°40'E. for 820.1 feet; thence on a curve to the left with a radius of 186.8 feet for 312.9 feet; thence N. 4°40'W. for 1554.5 feet; thence N. 25°06'W. for 94.5 feet; thence on a curve to the right with a radius of 5610.0 feet for 1445.2 feet; thence N. 09°54'E. for 95.7 feet to the North Sec. line of said Sec. 14; thence along said Sec. line S. 89°01'E. for 150.0 feet to the E. 1/16 line of said Sec. 11; thence along said 1/16 line N. 1°13'E. for 849.4 feet to the Westerly R.O.W. line of the Highway; thence N. 09°54'E. for 338.1 feet; thence N. 28°20'E. for 31.6 feet; thence N. 09°54'E. for 137.2 feet; thence S. 89°01'E. for 151.8 feet to the Easterly R.O.W. line of the Highway; thence S. 09°54'W. for 560.6 feet; thence S. 28°20'W. for 63.2 feet; thence S. 09°54'W. for 861.7 feet; thence on a curve to the left with a radius of 5650.0 feet for 1403.4 feet; thence S. 15°46'W. for 94.5 feet; thence S. 4°40'E. for 2465.0 feet; thence S. 25°06'E. for 158.1 feet; thence S. 4°40'E. for 200.0 feet; thence S. 15°46'W. for 158.1 feet; thence S. 4°40'E. for 572.2 feet to the South Sec. line of said Sec. 14; thence along said Sec. line N. 89°56'W. for 50.2 feet to the point of beginning.

Said Right-of-Way contains a total of 22.630 acres, of which 1.170 acres are contained in the R.O.W. of the present road, leaving 0.296 acres of meadow land and 21.164 acres of uncultivated land to be acquired.



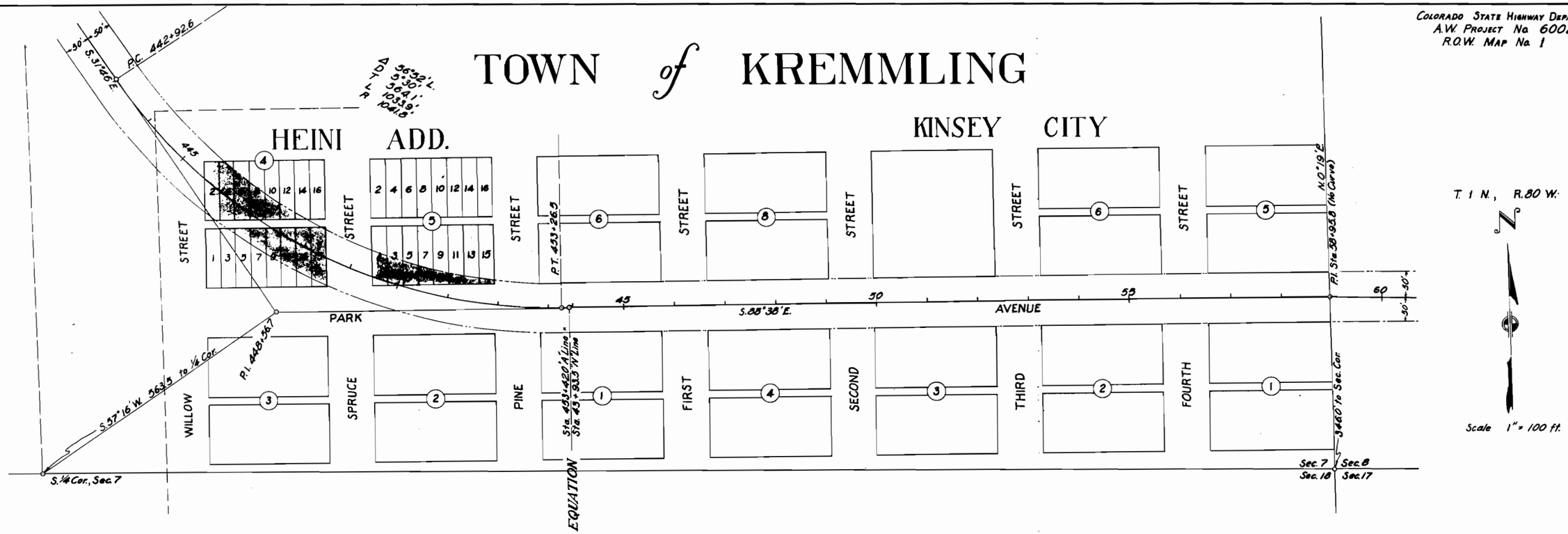
HINMAN LAND & LIVESTOCK CO.

Conveys all of the land within the Right of Way of the Highway; said Highway is located in the S.W.¼ of the S.E.¼ of Sec. 11, T. 2N., R. 81 W. of the 6th. P.M. Said Right of Way extends 50.0 feet on each side of the centerline of the Highway, except where otherwise shown and noted, more particularly described as follows:

Beginning at centerline Sta. 104 + 12.4, a point on the South Sec. line of said Sec. 11, whence the S.E. Corner of said Sec. 11 bears S. 89°01'E. a distance of 1590.3 feet; thence along said Sec. line S. 89°01'E. for 69.0 feet to the E. 1/16 line of said Sec. 11; thence along said 1/16 line N. 1°13'E. for 849.4 feet, to the Westerly R.O.W. line of the Highway; thence S. 09°54'W. for 37.9 feet; thence S. 28°20'W. for 63.2 feet; thence S. 09°54'W. for 765.0 feet to the South Sec. line of said Sec. 11; thence along said Sec. line S. 89°01'E. for 81.0 feet to the point of beginning.

Said Right-of-Way contains a total of 1.607 acres, of which 1.348 acres are meadow land and 0.259 acres are uncultivated land, all of which is to be acquired.

COLORADO STATE HIGHWAY DEPARTMENT
A.W. PROJECT No. 6002
R.O.W. MAP No. 1



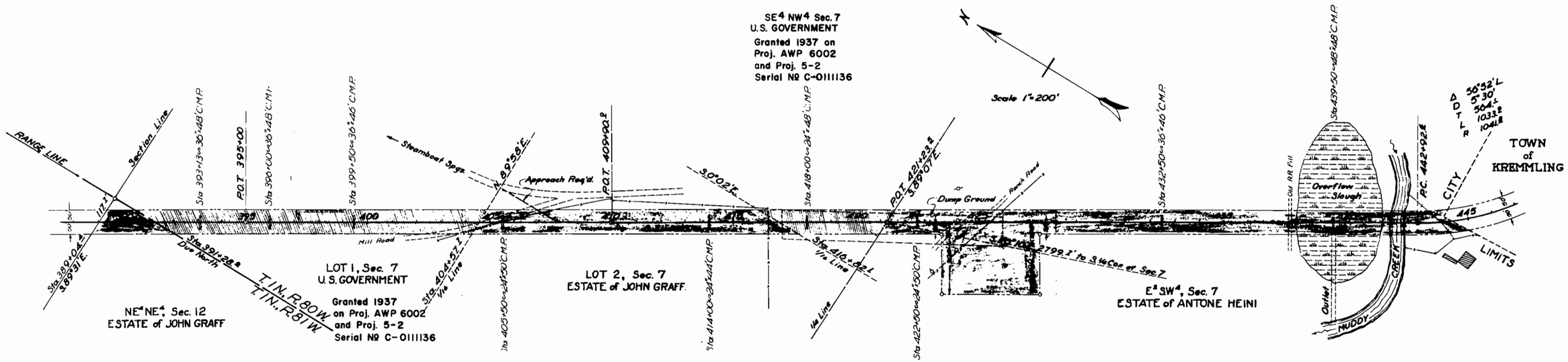
FRONTIER INVESTMENT CO.

Conveys all of the land within the Right-of-Way of that part of State Highway A. W. Project 6002 located in Lots 1, 2, 3, 7, 9, 11, 13, & 15, in Block 3 of the Heini Addition, and in Lots 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, & 15, in Block 4 of said Heini Addition to the Town of Kremmling, Colorado, all in the W.½ of the S. E. ¼ of Sec. 7, T. 1 N., R. 80 W. of the 6th P.M. Said Right-of-Way extends 80.0 feet on each side of the Centerline of the Highway, more particularly described as follows:

(A) Beginning at Centerline Station 448 + 45.9 of the Highway, a point on the West Boundary of said Lot 1, Block 3, thence the S.W. corner of said lot 1 bears S. 1° 22' W. a distance of 18.5 feet, and the S.E. corner of said Sec. 7 bears S. 76° 18' E. a distance of 1941.3 feet; thence along said West Boundary of Lot 1, N. 1° 22' E. for 55.7 feet, to the northerly Right-of-Way line of the Highway; thence along said R.O.W. line from a tangent bearing S. 46° 26' E. on a curve to the left with a radius of 991.3 feet; for 248.9 feet, to the East Boundary of said Lot 15, Block 3; thence along said East Boundary of Lot 15, S. 1° 22' W. for 3.8 feet to the South Boundary of said Block 3; thence along said South Boundary, N. 88°38' W. for 340.0 feet to the West Boundary of said Block 3; thence along said West Boundary N. 1° 22' E, for 18.5 feet, to the point of beginning.

(B) Beginning at Centerline Station 448 + 47.6 of the Highway, a point on the East Boundary of Lot 15, Block 4, thence the S.E. corner of said Lot 15 bears S. 1° 22' W. a distance of 58.1 feet and the S.E. corner of said Sec. 7 bears S. 76° 46' E. for 2037.8 feet; thence along said East Boundary of Lot 15 Block 4, S. 1° 22' W. for 55.4 feet to the Southerly R.O.W. line of the Highway; thence along said R.O.W. line from a tangent bearing N. 60° 51' W., on a curve to the right with a radius of 1091.3 feet for 265.5 feet to the West Boundary of said Block 4; thence N. 1°22' E. for 100.2 feet along said West Boundary to the North Boundary of said Block 4; thence S. 88° 38' E. along said North Boundary of said Block 4 for 37.2 feet to the Northerly R.O.W. line of the Highway; thence along said R.O.W. line from tangent bearing S. 46° 51' E. on a curve to the left with a radius of 991.3 feet for 248.0 feet to the East Boundary of said Block 4; thence S. 1° 22' W. along said East Boundary for 56.3 feet to the point of beginning.

Said Right-of-Way contains 3,488 sq. feet of land described in part (A) and 28,792 sq. feet described in part (B) of which 2,222 sq. feet are contained in the alley leaving a remainder of 28, 864 sq. feet in part (B). Total land to be acquired: 34,[illegible] sq. feet, or 0. 799 acres all uncultivated.



ESTATE OF JOHN GRAFF

Conveys all of the land within the Right-of-Way of the Highway. Said Highway is located in (a) the N.E.¼ N.E.¼ Sec. 12, T. 1N. R.81W. of the sixth P.M. and in (b) Lot 2, of Sec. 7, T. 1N. R.80W. of the sixth P.M. Said Right-of-Way extends 50.0 feet on each side of the centerline of the Highway, and more particularly described as follows:

(a) Beginning at centerline station 389/04.4 , a point on the north section line of said section 12, T. 1N. R.81W. 6th P.M. whence the N.E. corner of said section 12 bears S. 89°31'E. a distance of 117.7 feet; thence along said section line S.89°31'E. for 59.1 feet to the easterly Right-of-Way line of the Highway; thence S.31°46'W. for 111.4 feet to the east range line of said R. 81W.; thence along said range line due south for 190.0 feet to the westerly Right-of-Way line of the Highway; thence N.31°46'W. for 355.8 feet to the said north section line of section 12; thence along said section line S.89°31'E. for 59.1 feet to the point of beginning.

(b) Beginning at centerline station 404/57.7, a point on the north one sixteenth line of said section 7, T.1N.R.80W. of the 6th P.M. whence the N.W. corner of said Sec. 7 bears N. 27°07'W. a distance of 1463.6 feet; thence along said one sixteenth line N.89°58'E. for 58.8 feet to the easterly Right-of-Way line of the Highway; thence S.31°46'E. for 1112.6 feet to the west one-sixteenth line of said section 7; thence along said one-sixteenth line S. 0°02'E. for 190.0 feet to the westerly Right-of-Way line of the Highway; thence N. 31°46'W. for 1336.8 feet to the said north one-sixteenth line of said section 7; thence along said one-sixteenth line N.89°58'E. for 58.8 feet to the point of beginning.

Said Right-of-Way contains in (a) 0.813 acres and in (b) 2.511 acres giving a total of 3.324 acres, of which 0.202 acres are contained in the right of way of the Mill Creek County Road, leaving a balance of 3.122 acres of unsultivated land to be acquired.

U.S. GOVERNMENT

Conveys all of the land within the Right-of-Way of the Highway. Said Highway is located in (a) Lot 1, and (b) S.E.¼ N.W.¼ of section 7 T.1N. R.80W. of the 6th P.M. Said Right-of-Way extends 50.0 feet on each side of the center line of the Highway, and more particularly described as follows:

(a) Beginning at centerline station 404/57.7 a point on the north one-sixteenth line of said section 7, whence the N.W. corner of said section 7 bears N.27°07'W. a distance of 1463.6 feet; thence along said one-sixteenth line S.89°58'W. for 58.8 feet to the westerly Right-of-Way line of the Highway; thence N. 31°46'W. for 1213.0 feet to the west range line of said R.80W. 6th P.M.; thence along said range line due north for 190.0 feet to the easterly Right-of-Way line of the Highway; thence S. 31° 46'E. for 1441.4 feet to the north one-sixteenth of said section 7; thence along said one-sixteenth line S. 89°58'W. for 58.8 feet to the point of beginning.

(b) Beginning at center line station 481/83.5 a point on the east and west ¼ line of said section 7, whence the S.¼ corner of said section 7 bears S.20°10'E. a distance of 2799.7 feet; thence along said ¼ line N.89°07'W. for 59.4 feet to the westerly Right-of-Way line of the Highway; thence N. 31°46'W. for 352.5 feet to the west one-sixteenth line of said section 7; thence along said one-sixteenth line N.0°02'W. for 190.0 feet to the easterly Right-of-Way line of the Highway; thence S.31°46'E. for 554.5 feet to the said east and west ¼ line of said section 7; thence along said ¼ line N. 89°07'W. for 59.4 feet to the point of beginning.

Said Right-of-Way contains in (a) 3.065 acres and in (b) 1.013 acres giving a total of 4.066 acres of which 0.184 acres are contained in the Right-of-Way of the Mill Creek County Road, leaving 3.882 acres of unsultivated land to be acquired.

ESTATE OF ANTONE HEINI

Conveys all of the land within the Right-of-Way of the Highway. Said Highway is located in the E.½ S.W.¼ Sec. 7, T.1N. R.80W. of the 6th P.M. Said Right-of-Way extends 50.0 feet on each side of the center line of the Highway except where otherwise shown and noted and more particularly described as follows:-

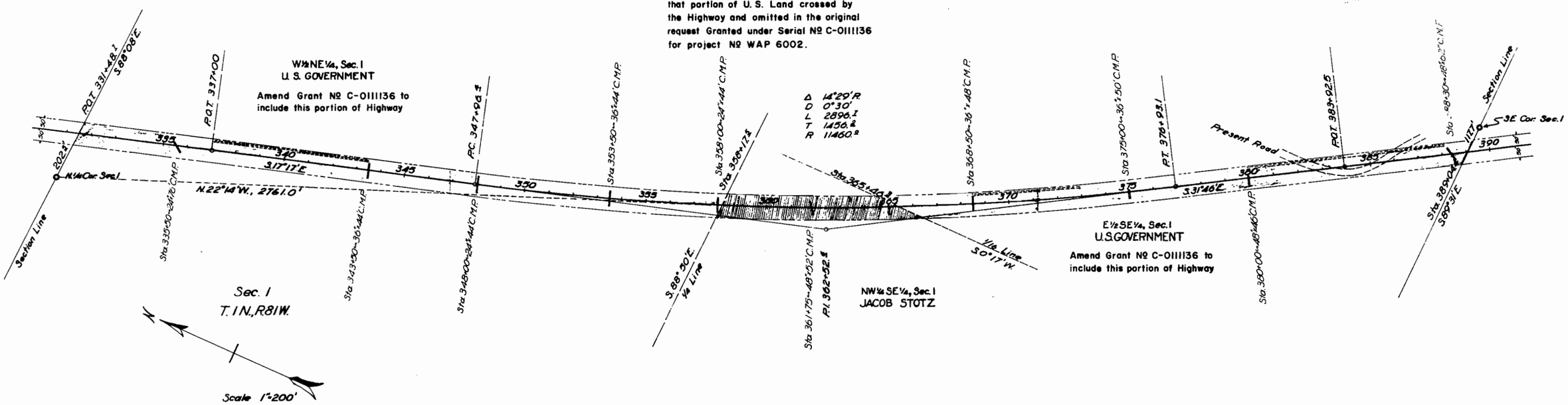
Beginning at centerline station 481/83.5, a point on the east and west ¼ line of said Sec. 7, whence the south ¼ corner of said section 7 bears S.20°10'E. a distance of 2799.7 feet; thence along said ¼ line S.89°07'E. for 59.4 feet to the easterly Right-of-Way line the Highway; thence S.31° 46'E. for 31.27.1 feet; thence on a curve to the left with a radius of 991.8 feet for 125.0 feet; to the north boundary of the Town Of Kremmling; thence along said boundary line N.88°38'W. for 31.5 feet to the northwest corner of the city limits of the Town Of Kremmling; thence along the westerly boundary of the Town Of Kremmling S.1°22'W. for 38.0 feet to center line station 444/42.5 of the Highway; thence along the same boundary line S.1°22'W. for 58.2 feet to the westerly Right-of-Way line of the Highway; thence from a tangent bearing N. 48°08'W. on a curve to the right with a radius of 1091.8 feet for 197.5 feet; thence N. 31°46'W. for 1348.6 feet; thence S. 58°14'W. for 280.0 feet; thence N.31°46'W. for 400.0 feet; thence N.58°14'E. for 280.0 feet; thence N. 31°46'W. for 288.5 feet to the said east and west ¼ line of said section 7; thence along said ¼ line S.89°07'E. for 59.4 feet to the point of beginning.

Said Right-of-Way contains 7.615 acres of unsultivated land, all of which is to be acquired.

GOLORADO STATE HIGHWAY DEPARTMENT
A.W. PROJECT Nº 6002
RIGHT-OF-WAY MAP Nº 2.

NOTE

This plan sheet resubmitted to include that portion of U. S. Land crossed by the Highway and omitted in the original request Granted under Serial Nº C-011136 for project Nº WAP 6002.



JACOB STOTZ.

Conveys all of the land situated within the Right-of-Way of the Highway; said Highway is located in the N.W.¼ of the S.E.¼ of Sec. 1, T. 1N., R. 81W. of the 6th P.M. Said Right-of-Way extends 50.0 feet on each side of the centerline of the Highway, more particularly described as follows:

Beginning at centerline station 358+17.5, a point on the east and west ¼ line of said Sec. 1, thence the N. ¼ corner of said Section bears N. 22°14'W. a distance of 2761.0 Ft. Thence along said ¼ line S. 88°50'E. for 54.8 feet to the easterly Right-of-Way line of the Highway; thence from a tangent bearing S. 22°29'E. and on a curve to the left with a radius of 11,410.0 Ft. for 606.1 Ft. to the east one sixteenth line of said section 1; thence along said one sixteenth line S. 0°17'W. for 220.9 Ft. to the westerly Right-of-Way line of the Highway; thence from a tangent bearing N. 26°32'W. on a curve to the right with a radius of 11,510.0 Ft. for 628.8 Ft. to the said east and west ¼ line of said Sec. 1; thence along said ¼ line S. 88°50'E. for 54.4 Ft. to the point of beginning.

Said Right-of-Way contains 1.674 acres of uncultivated land, all of which is to be acquired.

U.S. GOVERNMENT

Conveys all of the land within the Right-of-Way of the Highway. Said Highway is located in (a) W.½ N.E.¼ of Sec. 1, and (b) E.½ S.E.¼ of Sec. 1, T. 1N., R. 81W. of the 6th P.M. Said Right-of-Way extends 50.0 Ft. on each side of the centerline of the Highway and more particularly described as follows:

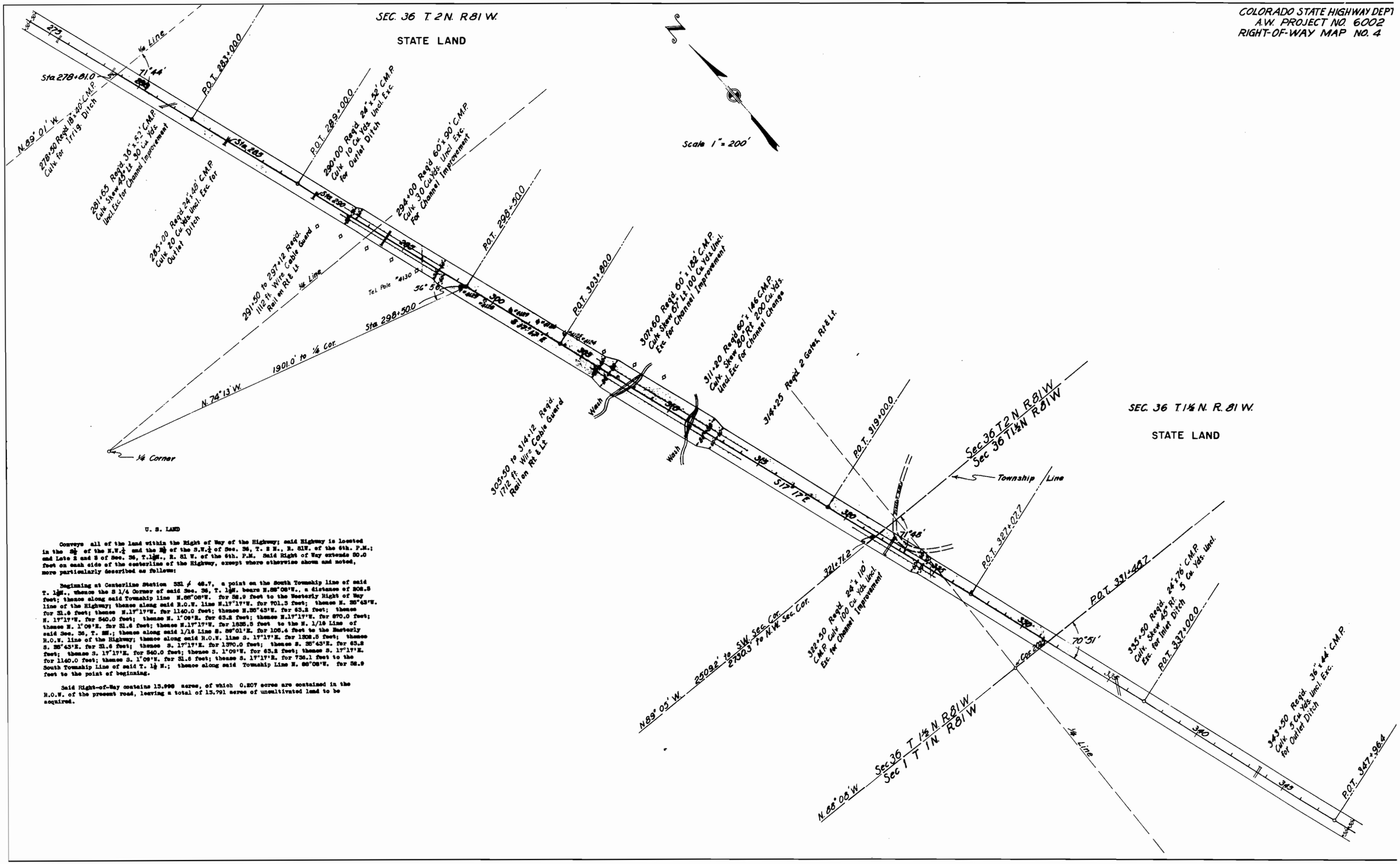
(a) Beginning at centerline station 331+48.7, a point on the north section line of said section 1, thence the N. ¼ corner of said section 1 bears N. 88°08'W. a distance of 202.5 feet; thence along said section S. 88°08'E. for 98.9 feet to the easterly Right-of-Way line of theHighway; thence S. 17°17'E. for 1630.3 feet; thence on a curve to the leftwith a radius of 11,410.0 feet for 1038.2 feet to the east and west ¼ line of said section 1 ; thence along said ¼ line N.88°50'E. for 109.1 feet to the westerly Right-of-Way line of the Highway; thence from a tangent bearing of N. 22°17'W. and on a curve to the right with a radius of 11,510.0 feet for 1005.3 feet; thence N.17°17'W. for 1665.1 feet to the north section line of said section 1; thence along said section line S.88°08'E. for 98.9 feet to the point of beginning.

(b) Beginning at centerline station 389+04.4 a point on the south section line of said section 1, thence the S.E. corner of said section 1 bears S.89°31'E. a distance of 117.7 feet; thence along said section line N. 89°31'W. for 59.1 feet to the westerly Right-of-Way line of the Highway; thence N. 31°46'E. for 1179.7 feet; thence on a curve to the right with a radius of 11,510.0 feet for 1048.0 feet to the east one sixteenth line of said section 1 ; thence along said one sixteenth line N. 0°17'E. for 220.9 feet to the easterly Right-of-Way line of the Highway; thence from a tangent bearing of S.25°31'E. on a curve to the left with a radius of 11,410.0 feet for 1344.6 feet; thence S. 31°46'E. for 1248.9 feet to the said south section line of section 1 ; thence along said section line N. 89°31'W. for 59.1 feet to the point of beginning.

Said Right-of-Way contains in (a) 6.127 acres and in (b) 5.412 acres giving a total of 11.539 acres of which 0.620 acres are contained in the right of way of the present road, leaving 10.919 acres of uncultivated land to be acquired.

COLORADO STATE HIGHWAY DEPT.
A.W. PROJECT Nº 6002
RIGHT-OF-WAY MAP Nº 3.

COLORADO STATE HIGHWAY DEPT
A.W. PROJECT NO. 6002
RIGHT-OF-WAY MAP NO. 4

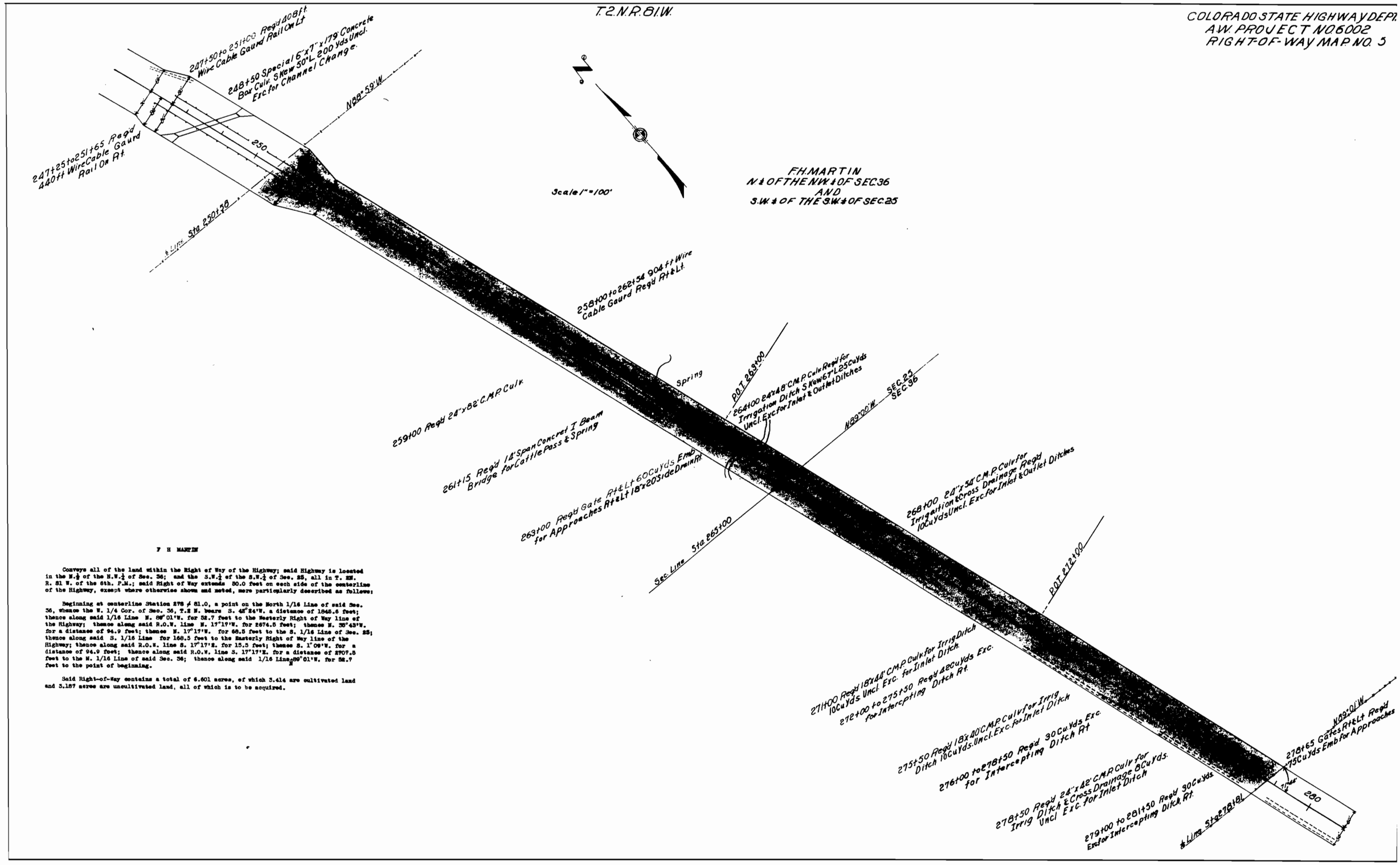


U. S. LAND

Conveys all of the land within the Right of Way of the Highway; said Highway is located in the S½ of the N.W.¼ and the N½ of the S.W.¼ of Sec. 36, T. 2 N., R. 81W. of the 6th. P.M.; and Lots 2 and 3 of Sec. 36, T.1½N., R. 81 W. of the 6th. P.M. Said Right of Way extends 50.0 feet on each side of the centerline of the Highway, except where otherwise shown and noted, more particularly described as follows:

Beginning at Centerline Station 331 + 46.7, a point on the South Township line of said T. 1½N., whence the S 1/4 Corner of said Sec. 36, T. 1½N. bears N.88°08'W., a distance of 308.5 feet; thence along said Township line N.88°08'W. for 58.9 feet to the Westerly Right of Way line of the Highway; thence along said R.O.W. line N.17°17'W. for 701.3 feet; thence N. 25°43'W. for 51.6 feet; thence N.17°17'W. for 1140.0 feet; thence N.25°43'W. for 63.2 feet; thence N. 17°17'W. for 540.0 feet; thence N. 1°09'E. for 63.2 feet; thence N.17°17'W. for 870.0 feet; thence N. 1°09'E. for 51.6 feet; thence N.17°17'W. for 1835.5 feet to the N. 1/16 Line of said Sec. 36, T. 2N.; thence along said 1/16 Line S. 89°01'E. for 106.4 feet to the Westerly R.O.W. line of the Highway; thence along said R.O.W. line S. 17°17'E. for 1328.5 feet; thence S. 25°43'E. for 51.6 feet; thence S. 17°17'E. for 1370.0 feet; thence S. 25°43'E. for 63.2 feet; thence S. 17°17'E. for 540.0 feet; thence S. 1°09'W. for 63.2 feet; thence S. 17°17'E. for 1140.0 feet; thence S. 1°09'W. for 51.6 feet; thence S. 17°17'E. for 736.1 feet to the South Township Line of said T. 1½ N.; thence along said Township Line N. 88°08'W. for 58.9 feet to the point of beginning.

Said Right-of-Way contains 13.998 acres, of which 0.207 acres are contained in the R.O.W. of the present road, leaving a total of 13.791 acres of uncultivated land to be acquired.



F H MARTIN

Conveys all of the land within the Right of Way of the Highway; said Highway is located in the N.½ of the N.W.¼ of Sec. 36; and the S.W.¼ of the S.W.¼ of Sec. 25, all in T. 2N. R. 81 W. of the 6th. P.M.; said Right of Way extends 50.0 feet on each side of the centerline of the Highway, except where otherwise shown and noted, more particularly described as follows:

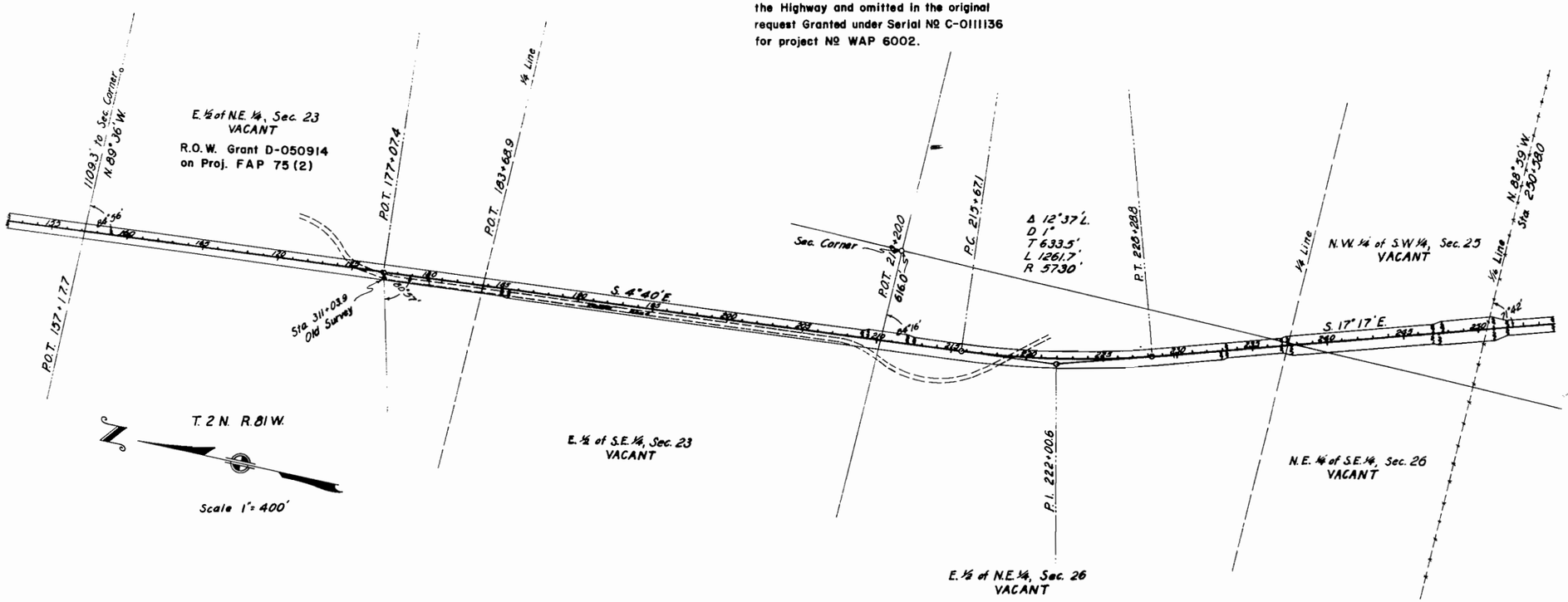
Beginning at centerline Station 278 + 81.0, a point on the North 1/16 Line of said Sec. 36, whence the W. 1/4 Cor. of Sec. 36, T.2 N. bears S. 42°24'W. a distance of 1845.6 feet; thence along said 1/16 Line N. 89°01'W. for 52.7 feet to the Westerly Right of Way line of the Highway; thence along said R.O.W. line N. 17°17'W. for 2674.5 feet; thence N. 35°43'W. for a distance of 94.9 feet; thence N. 17°17'W. for 66.5 feet to the S. 1/16 Line of Sec. 25; thence along said S. 1/16 Line for 168.5 feet to the Easterly Right of Way line of the Highway; thence along said R.O.W. line S. 17°17'E. for 15.5 feet; thence S. 1°09'W. for a distance of 94.9 feet; thence along said R.O.W. line S. 17°17'E. for a distance of 2707.5 feet to the N. 1/16 Line of said Sec. 36; thence along said 1/16 Line S89°01'W. for 52.7 feet to the point of beginning.

Said Right-of-Way contains a total of 6.601 acres, of which 3.414 are cultivated land and 3.187 acres are uncultivated land, all of which is to be acquired.

COLORADO STATE HIGHWAY DEPT.
A.W. PROJECT NO. 6002
RIGHT-OF-WAY MAP NO. 6

NOTE

This plan sheet resubmitted to include that portion of U. S. Land crossed by the Highway and omitted in the original request Granted under Serial Nº C-011136 for project Nº WAP 6002.



Amend Grant Nº C-011136 to include this portion of Highway.

U. S. LAND

Conveys all of the land within the Right of Way of the Highway; said Highway is located in the N.W.¼ of the S.W.¼ of Sec. 25; the N.E.¼ of the S.E.¼ of Sec. 26; the E.½ of the N.E.¼ of Sec. 26, and the E.½ of the E.½ of Sec. 23, all in T.2 N., R.81 W. of the 6th. P.M.; said Right of Way extends 50.0 feet on each side of the centerline of the Highway, except where otherwise shown and noted, more particularly described as follows:

Beginning at centerline Station 137 + 17.7, a point on the North Sec. line of said Sec. 23, whence the N.E. Sec. Corner of said Sec. 23 bears S. 89°36'E. a distance of 1109.3 feet; thence along said Sec. line S. 89°36'E. for 50.3 feet to the Westerly R.O.W. line of the Highway; thence S. 4°40'E. for 2177.8 feet; thence S. 25°06'E. for 51.4 feet; thence S. 4°40'E. for 570.0 feet; thence S. 15°44'W. for 51.6 feet; thence S. 4°40'E. for 537.1 feet; thence on a curve to the left with a radius of 5620.0 feet for 1220.7 feet; thence S. 17°17'E. for 571.2 feet; thence S. 38°43'E. for 51.6 feet; thence S. 17°17'E. for 970.0 feet; thence S. 38°43'E. for 63.2 feet; thence S. 17°17'E. for 514.5 feet to the South 1/16 Line of Sec. 25; thence along said 1/16 line N.88°39'W. for 168.6 feet to the Westerly R.O.W. line of the Highway; thence N. 17°17'W. for 291.5 feet; thence W. 1°09'E. for 51.6 feet; thence N. 17°17'W. for 940.0 feet; thence N. 1°09'E. for 63.2 feet; thence N. 17°17'W. for 370.0 feet; thence N. 38°43'W. for 51.6 feet; thence N. 17°17'W. for 471.2 feet; thence on a curve to the right with a radius of 5730.0 feet, for 1274.8 feet; thence N. 4°40'W. for 537.1 feet; thence N. 1°09'E. for 51.6 feet; thence N. 4°40'W. for 2728.7 feet to the North Sec. line of Sec. 23; thence along said Sec. line S. 89°36'E. for 50.3 feet to the point of beginning.

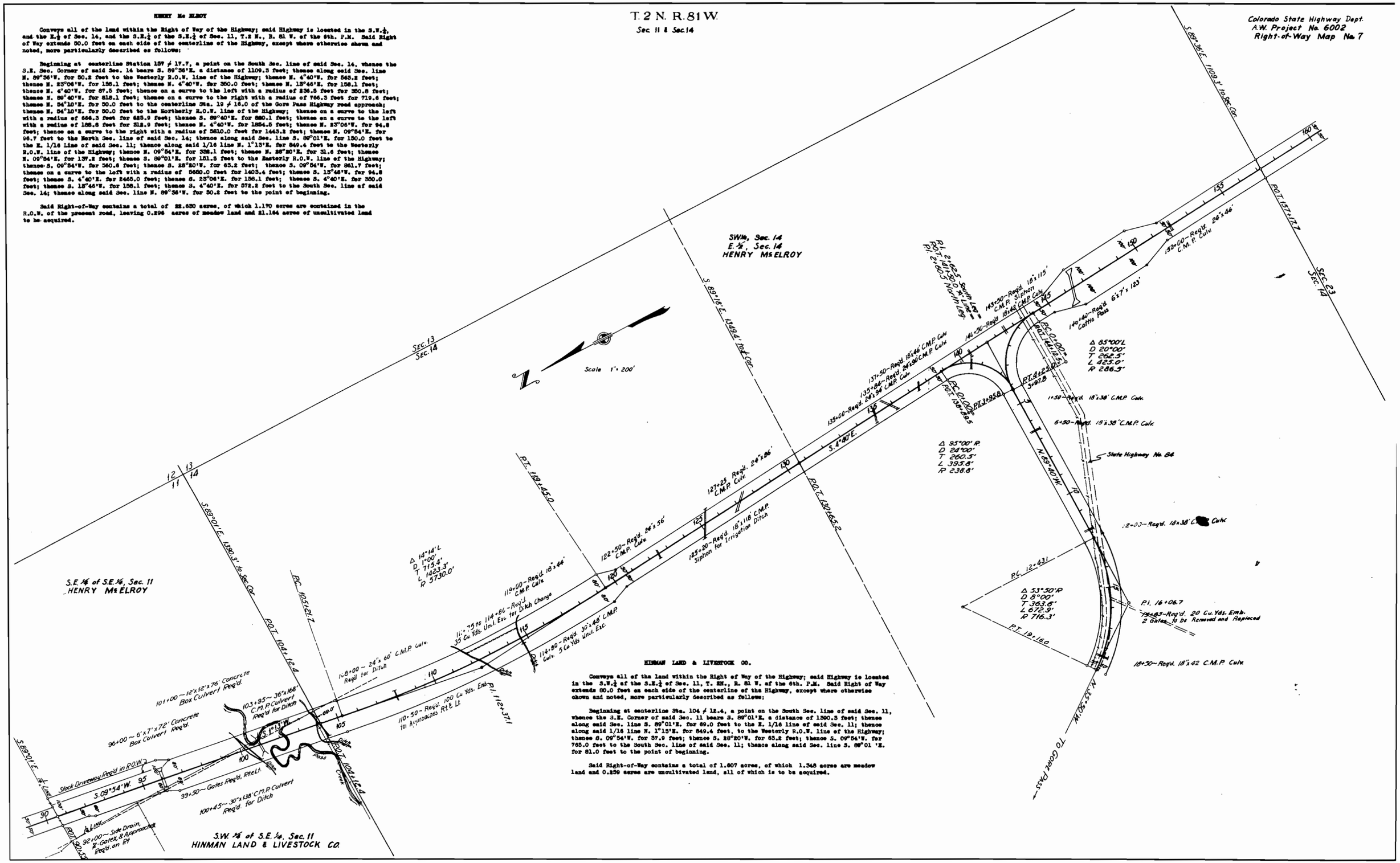
Said Right-of-Way contains 23.640 acres, of which 5.00 acres are contained in the Right of Way of the present Highway, leaving a total of 18.640 acres of uncultivated land to be acquired.

HENRY Mc ELROY

Conveys all of the land within the Right of Way of the Highway; said Highway is located in the S.W.¼, and the E.½ of Sec. 14, and the S.E.¼ of the S.E.¼ of Sec. 11, T.2 N., R. 81 W. of the 6th. P.M. Said Right of Way extends 50.0 feet on each side of the centerline of the Highway, except where otherwise shown and noted, more particularly described as follows:

Beginning at centerline Station 159 + 17.7, a point on the South Sec. line of said Sec. 14, whence the S.E. Sec. Corner of said Sec. 14 bears S. 89°36'E. a distance of 1109.3 feet; thence along said Sec. line N. 89°36'W. for 50.2 feet to the Westerly R.O.W. line of the Highway; thence N. 4°40'W. for 563.2 feet; thence N. 23°06'W. for 156.1 feet; thence N. 4°40'W. for 350.0 feet; thence N. 13°46'E. for 156.1 feet; thence N. 4°40'W. for 87.5 feet; thence on a curve to the left with a radius of 236.5 feet for 350.8 feet; thence N. 89°40'W. for 512.1 feet; thence on a curve to the right with a radius of 766.3 feet for 719.6 feet; thence N. 54°10'E. for 50.0 feet to the centerline Sta. 19 + 16.0 of the Gore Pass Highway road approach; thence N. 54°10'E. for 50.0 feet to the Northerly R.O.W. line of the Highway; thence on a curve to the left with a radius of 666.3 feet for 625.9 feet; thence S. 89°40'E. for 680.1 feet; thence on a curve to the left with a radius of 186.6 feet for 292.9 feet; thence N. 4°40'W. for 1854.5 feet; thence N. 23°06'W. for 94.8 feet; thence on a curve to the right with a radius of 5810.0 feet for 1443.2 feet; thence N. 09°54'E. for 96.7 feet to the North Sec. line of said Sec. 14; thence along said Sec. line S. 89°01'E. for 150.0 feet to the E. 1/16 Line of said Sec. 11; thence along said 1/16 line N. 1°13'E. for 849.4 feet to the Westerly R.O.W. line of the Highway; thence N. 09°54'E. for 328.1 feet; thence N. 28°20'E. for 31.6 feet; thence N. 09°54'E. for 137.2 feet; thence S. 89°01'E. for 151.5 feet to the Easterly R.O.W. line of the Highway; thence S. 09°54'W. for 560.6 feet; thence S. 28°20'W. for 63.2 feet; thence S. 09°54'W. for 861.7 feet; thence on a curve to the left with a radius of 5660.0 feet for 1403.4 feet; thence S. 13°46'W. for 94.8 feet; thence S. 4°40'E. for 2465.0 feet; thence S. 23°06'E. for 156.1 feet; thence S. 4°40'E. for 350.0 feet; thence S. 13°46'W. for 156.1 feet; thence S. 4°40'E. for 572.2 feet to the South Sec. line of said Sec. 14; thence along said Sec. line N. 89°36'W. for 50.2 feet to the point of beginning.

Said Right-of-Way contains a total of 22.630 acres, of which 1.170 acres are contained in the R.O.W. of the present road, leaving 0.296 acres of meadow land and 21.164 acres of unsultivated land to be acquired.



HINMAN LAND & LIVESTOCK CO.

Conveys all of the land within the Right of Way of the Highway; said Highway is located in the S.W.¼ of the S.E.¼ of Sec. 11, T. 2N., R. 81 W. of the 6th. P.M. Said Right of Way extends 50.0 feet on each side of the centerline of the Highway, except where otherwise shown and noted, more particularly described as follows:

Beginning at centerline Sta. 104 + 12.4, a point on the South Sec. line of said Sec. 11, whence the S.E. Corner of said Sec. 11 bears S. 89°01'E. a distance of 1390.3 feet; thence along said Sec. line S. 89°01'E. for 69.0 feet to the E. 1/16 line of said Sec. 11; thence along said 1/16 line N. 1°13'E. for 849.4 feet, to the Westerly R.O.W. line of the Highway; thence S. 09°54'W. for 37.9 feet; thence S. 28°20'W. for 63.2 feet; thence S. 09°54'W. for 765.0 feet to the South Sec. line of said Sec. 11; thence along said Sec. line S. 89°01 'E. for 81.0 feet to the point of beginning.

Said Right-of-Way contains a total of 1.607 acres, of which 1.348 acres are meadow land and 0.259 acres are uncultivated land, all of which is to be acquired.