



COLORADO
Department of
Transportation

DOCUMENT SEPARATOR SHEET

Staff Bridge Non-Historical Construction Plans

To be placed at the beginning of each document.

Row No.

2043

ID

4279

Box No.

38 of 55

Additional Data

S-0011(7)

For assistance, or to request changes to this form, please email helpdesk@msimaging.com.



FAP S0011(7)

SH 59

12-28-65

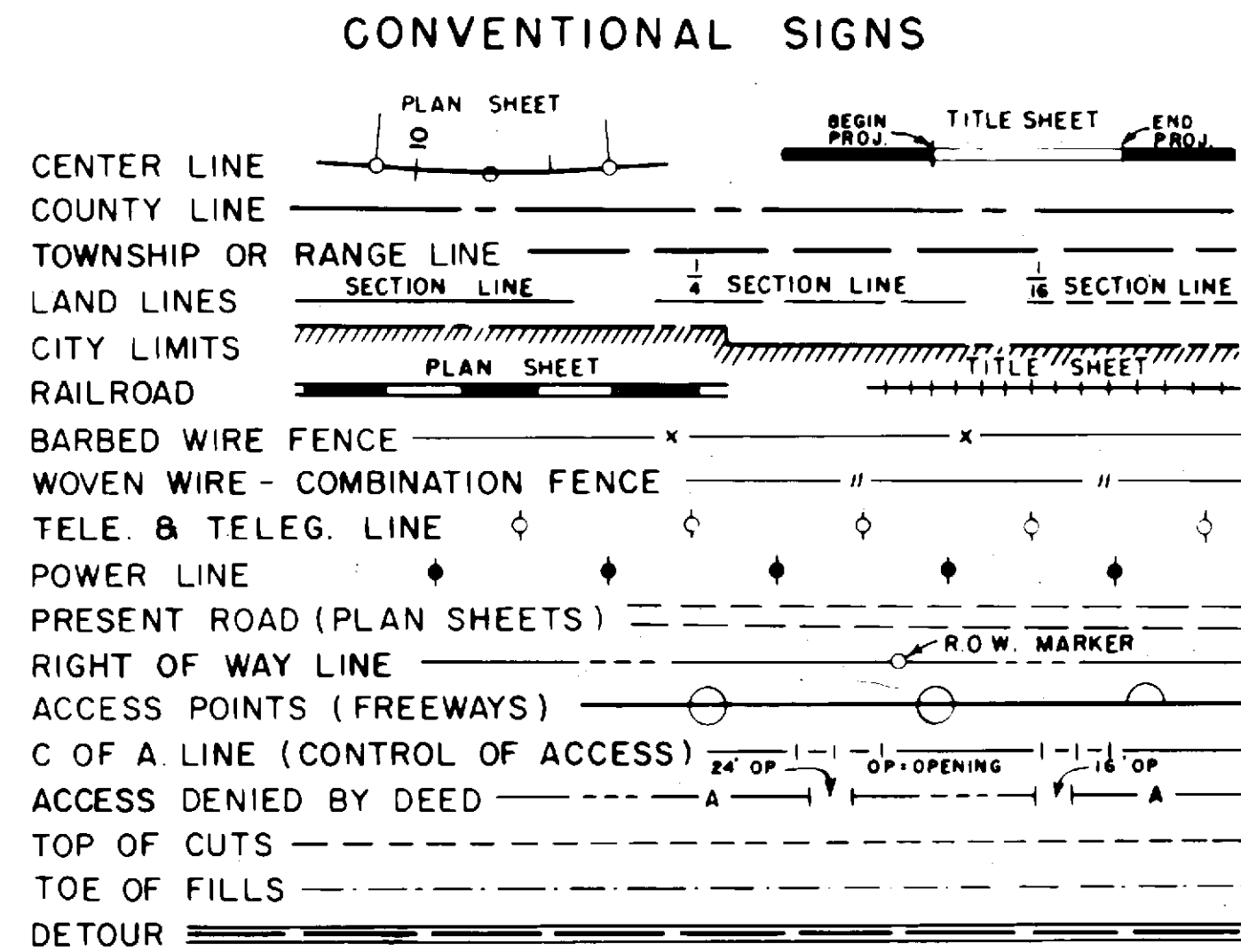
I-25-0

38

TITLE SHEET

DEPARTMENT OF HIGHWAYS STATE OF COLORADO

PLAN AND PROFILE OF PROPOSED FEDERAL AID PROJECT NO. S 0011(7) STATE HIGHWAY NO. 59 CHEYENNE COUNTY RIGHT OF WAY



SCALES OF ORIGINAL DRAWINGS

ON PLAN, 1 IN. = 100 FT.
ON PROFILE, 1 IN. = 100 FT. HORIZONTAL
1 IN. = 10 FT. VERTICAL
GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD
INFORMATION OBTAINED FROM AVAILABLE COUNTY RECORDS
LENGTH OF RIGHT OF WAY PROJECT = 0.267 MILES

FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLORADO	S 0011(7)	1

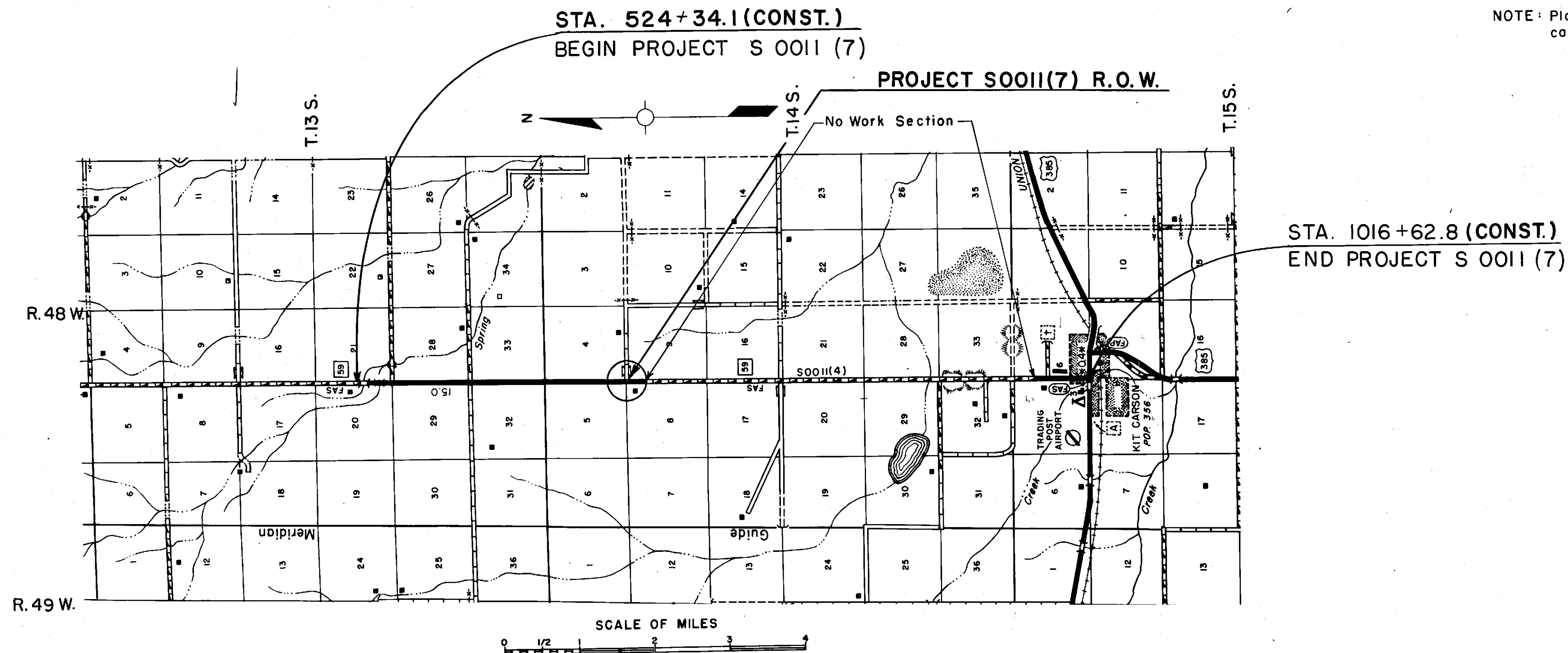
RIGHT OF WAY KIT CARSON NORTH

INDEX OF SHEETS

SHEET NO. 1 TITLE SHEET
2 TABULATION OF PROPERTIES
3 PLAN & PROFILE SHEET SHOWING R.O.W.

REVISIONS	

NOTE: Plans and descriptions on this project calculated and checked by field forces.



SEE SPECIAL PROVISIONS FOR
NOTICE TO BIDDERS

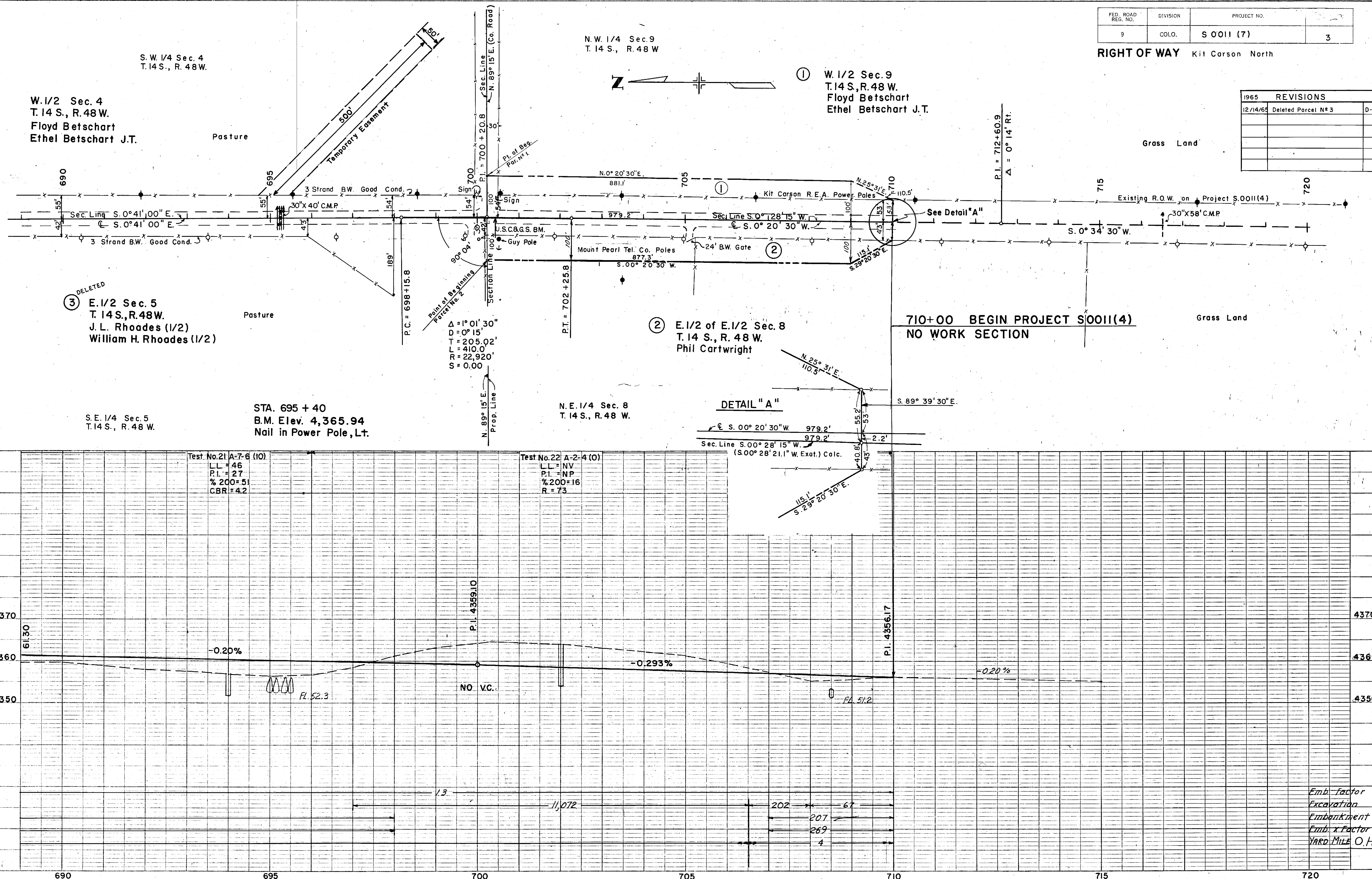
DEPARTMENT OF HIGHWAYS STATE OF COLORADO	
APPROVED:	DATE
CHIEF ENGINEER	

DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS	
APPROVED:	DATE
DIVISION ENGINEER	

FED. ROAD REG. NO.	DIVISION	PROJECT NO.	
9	COLO.	S 0011 (7)	3

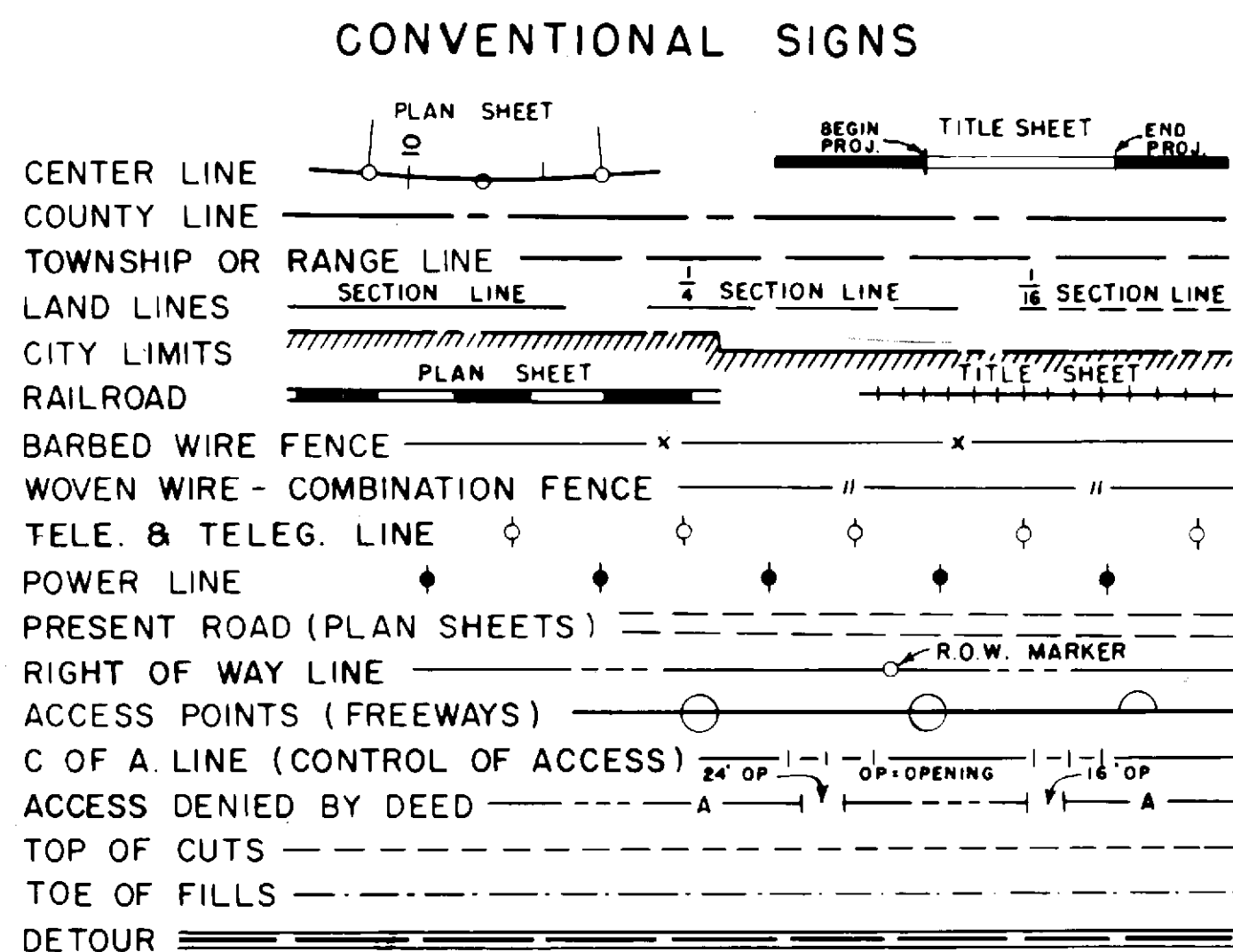
RIGHT OF WAY Kit Carson North

1965	REVISIONS	
12/14/65	Deleted Parcel N#3	D-1



DEPARTMENT OF HIGHWAYS STATE OF COLORADO

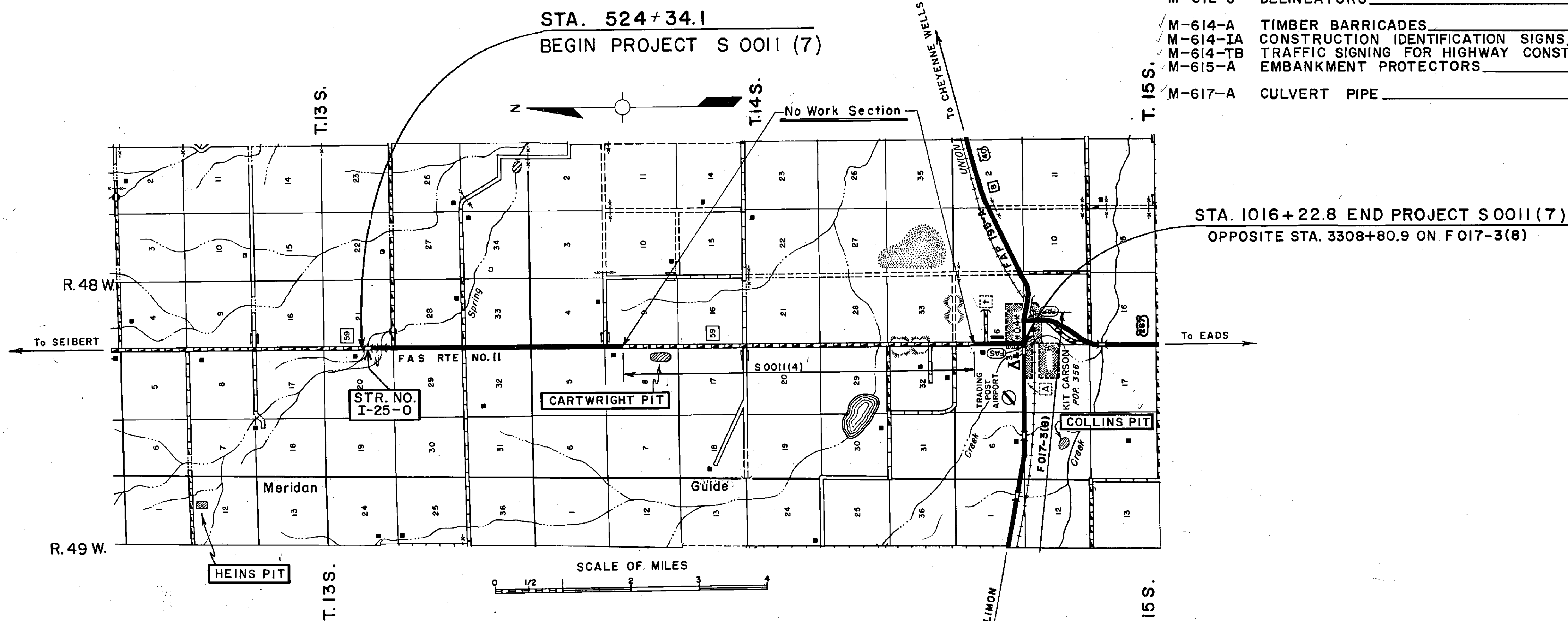
PLAN AND PROFILE OF PROPOSED FEDERAL AID PROJECT NO. S 0011(7) STATE HIGHWAY NO. 59 CHEYENNE COUNTY



SCALES OF ORIGINAL DRAWINGS
ON PLAN, 1 IN. = 100 FT.
ON PROFILE, 1 IN. = 100 FT. HORIZONTAL
1 IN. = 10 FT. VERTICAL
GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD
GROSS LENGTH OF PROJECT = 49,188.7 Lin. Ft. = 9.316 Miles
NET LENGTH OF PROJECT = 22,388.7 Lin. Ft. = 4.240 Miles

INDEX OF SHEETS

SHEET NO.		
1	SKETCH MAP & TITLE PAGE.	
2	TYPICAL CROSS SECTION OF IMPROVEMENT, GENERAL NOTES, TABULATION OF LENGTH & DESIGN DATA, DETAILS OF BITUMINOUS SLOPE & DITCH PAVING.	
3-4	SUMMARY OF APPROXIMATE QUANTITIES.	
5	TABULATION OF FENCING REQUIREMENT, SUBBASE MATERIAL PLAN, SURFACING PLAN, DELINEATORS, SUMMARY OF EARTHWORK QUANTITIES, & DETAIL OF DITCH CHECK & RIPRAP, STA 1012+	
6-7	STRUCTURE QUANTITIES.	
8	SKETCH MAP OF MATERIAL PITS.	
9-12	DETAILS OF BRIDGE, STA 524+	
13	DETAILS OF STRUCTURE TO RECEIVE CLASS "2" SURFACE FINISH.	
14-22	ALIGNMENT PLAN & PROFILE SHEETS.	
23-32	STRUCTURE CROSS SECTIONS.	
33-46	CROSS SECTIONS.	
M-203-A	SUPERELEVATION AND WIDENING OF CURVES - CROWNED HIGHWAYS	7-1-65
M-203-B	APPROACH ROADS, FLARING, CUT SLOPE TREATMENT, BRIDGE & CREST WIDENING	7-1-65
M-203-C	DITCH TYPES	7-1-65
M-206-A	EXCAVATION AND BACKFILL FOR STRUCTURES (2 SHEETS)	12-7-65
M-412-B	CONCRETE PAVEMENT BRIDGE APPROACH SLAB	7-1-65
M-500-A	LETTERS AND FIGURES FOR STRUCTURE NUMBERS	7-1-65
M-603-A	REINFORCED CONCRETE PIPE	12-7-65
M-603-B	CONCRETE END AND ANGLE SECTIONS	7-1-65
M-603-C	HEADWALLS AND END SECTIONS FOR C.S.P. CULVERTS	7-1-65
M-606-A	GUARD RAIL	12-7-65
M-607-A	WIRE FENCES AND GATES (2 SHEETS)	7-1-65
M-612-A	MARKERS POSTS AND BENCH MARKS	7-1-65
M-612-C	DELINEATORS (2 SHEETS)	7-1-65
M-614-A	TIMBER BARRICADES	7-1-65
M-614-IA	CONSTRUCTION IDENTIFICATION SIGNS	7-1-65
M-614-TB	TRAFFIC SIGNING FOR HIGHWAY CONSTRUCTION (3 SHEETS)	7-1-65
M-615-A	EMBANKMENT PROTECTORS (2 SHEETS)	12-7-65
M-617-A	CULVERT PIPE	7-1-65



SEE SPECIAL PROVISIONS FOR
NOTICE TO BIDDERS

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

APPROVED: 
CHIEF ENGINEER 12-28-65
DATE

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

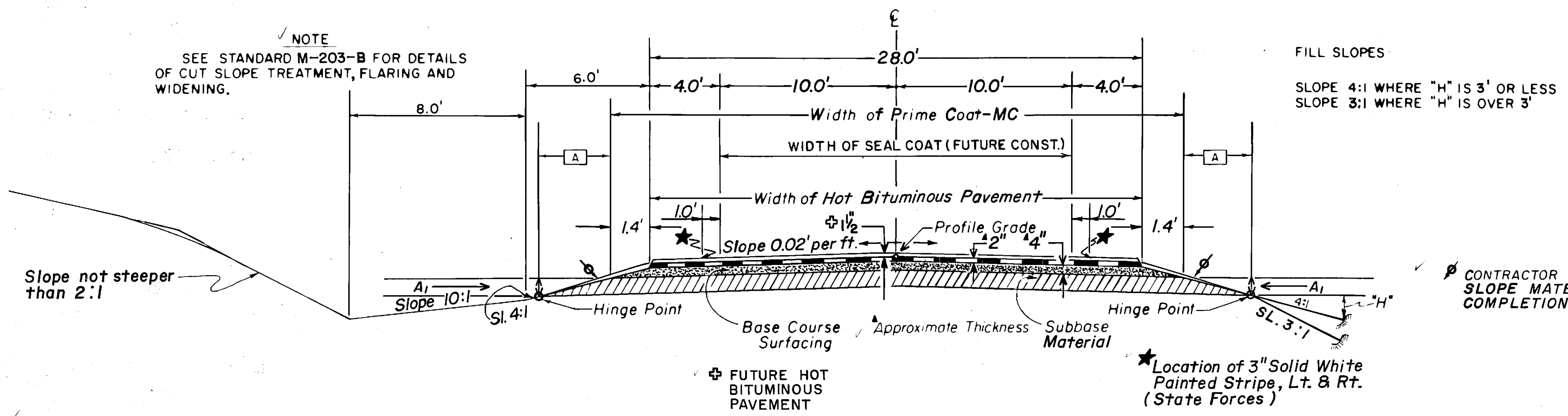
APPROVED: _____
DATE _____

DIVISION ENGINEER

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	S 0011 (7)	2	

- (A) REV. 1-25-66 GENERAL NOTES-G.S.
(B) REV. 2-2-66 GENERAL NOTES-G.S.

TYPICAL CROSS SECTION OF IMPROVEMENT



UNCL. EXCAVATION BELOW 4:1 SLOPE AND/OR 10:1 SLOPE WILL NOT BE PERMITTED.

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

HINGE POINT DATA

TYPICAL SECTION	DESIGN THICKNESS	A	A ₁	SUBBASE TONS/STA.
	5"	1.80'	-0.5'	82
	6"	2.20'	-0.6'	99
	8"	2.90'	-0.7'	135

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

	TYPICAL SECTION	
HOT BITUMINOUS PAVEMENT	32	TONS/STA.
BASE COURSE SURFACING	63	TONS/STA.

GENERAL NOTES

- ROAD APPROACHES WHICH REQUIRE HOT BITUMINOUS PAVEMENT IN THE "STRUCTURE LIST" SHALL BE PRIMED AND A 2 INCH THICKNESS OF BITUMINOUS PAVEMENT PLACED AS FOLLOWS:
- PUBLIC APPROACHES & RESIDENCES TO BE SURFACED 50 FT. OUT FROM EDGE OF SHOULDER OR TO THE R.O.W. LINE WHICHEVER IS LESS AND ENTRANCES TO FIELDS SHALL BE SURFACED 4' OUT FROM EDGE OF SHOULDER.
- ALL RIGID CONDUIT JOINTS USED ON THIS PROJECT SHALL BE MADE OF RUBBER GASKET OR PLASTIC CALKING.
- CLASS "AX" CONCRETE WILL BE PERMITTED ON THIS PROJECT.
- CLASS "A", "AX" OR "D" CONCRETE MAY BE USED FOR CURB & GUTTER. TYPE II CEMENT TO BE USED FOR ALL CONCRETE.

ALL EMBANKMENT MATERIAL IN THE ROADBED AND THE BASES OF CUTS AND FILLS SHALL BE CONSTRUCTED WITH MOISTURE AND DENSITY CONTROL. BASES OF CUTS AND FILLS SHALL BE CONSTRUCTED WITH MOISTURE AND DENSITY CONTROL TO DEPTH OF 6 INCHES.

FOR PRELIMINARY PLAN QUANTITIES OF ASPHALTIC ROAD MATERIALS THE FOLLOWING RATES OF APPLICATION WERE USED.

PRIME COAT MC @ 0.40 GALS. PER SQ. YD.

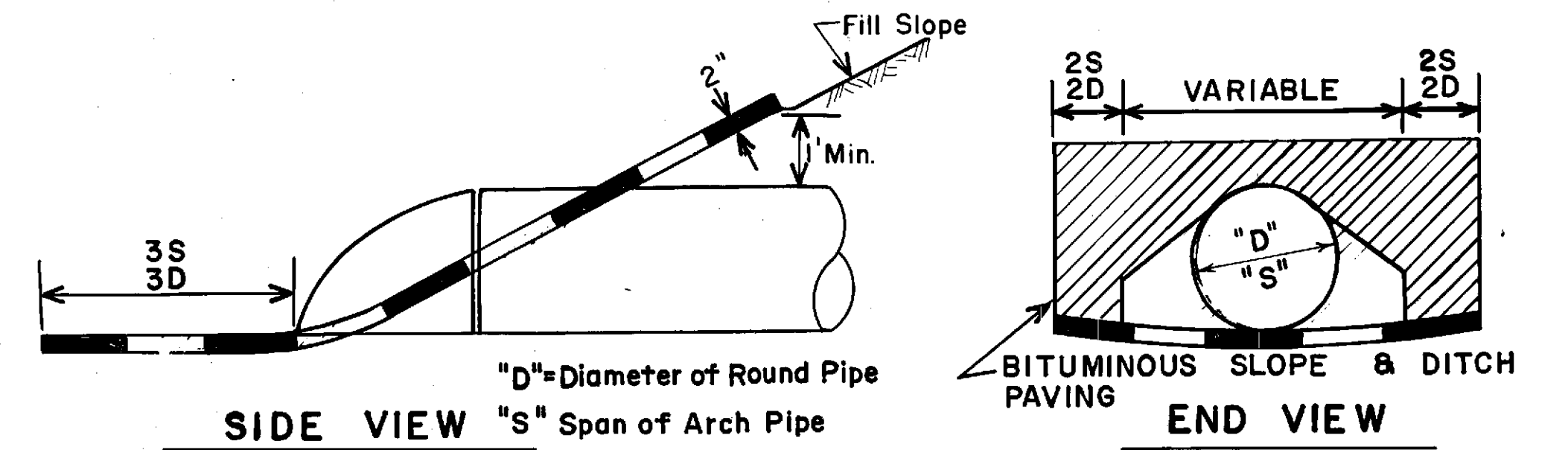
RATE OF APPLICATION AND GRADE OF ASPHALTIC MATERIAL SHALL BE AS DETERMINED BY THE ENGINEER AT TIME OF APPLICATION.

TABULATION OF LENGTH & DESIGN DATA			
STATION	ROADWAY LIN. FT.	MAJOR STRUCTURE LIN. FT.	NO. WORK SECTION LIN. FT.
✓ 524+34.1 BEGIN S 0011 (7)	26.9	67.9 ✓	26,800.0 ✓
✓ 524+61.0 BEGIN BRIDGE			
SPRING CREEK ~STR. NO. I-25-0			
✓ 525+28.9 END BRIDGE	18,471.1		
✓ 710+00 BEGIN S 0011 (4)			
NO WORK SECTION			
✓ 978+00 END S 0011 (4)	3,822.8		
1016+22.8 END S 0011 (7) = OPPOSITE 3308+80.9 on F 017-3(8)			
TOTALS	22,320.8	67.9 ✓	26,800.0

SUMMARY		
	LIN. FT.	MILES
ROADWAY	22,320.8	4.227
MAJOR STRUCTURE	67.9	0.013
TOTAL NET LENGTH	22,388.7	4.240
NO WORK SECTION	26,800.0	5.076
TOTAL GROSS LENGTH	49,188.7	9.316

DESIGN DATA		
MAXIMUM GRADE		0.78%
MAXIMUM DEGREE OF CURVE		7°45'
MINIMUM S.S.D. HORIZONTAL		420'
MINIMUM S.S.D. VERTICAL		1200'
MAXIMUM DESIGN SPEED		55 MPH

DETAILS OF BITUMINOUS SLOPE & DITCH PAVING



SUMMARY OF APPROXIMATE QUANTITIES

Rev. 1-25-66 G.S. Item No. 203 & 209

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLGRADO	S 0011(7)	3	

SPECIFICATION ITEM NO.	ITEM	UNIT	ROADWAY	MAJOR STRUCTURE STR. NO. I 25-0	PROJECT TOTALS
202	Removal of Structures	Each	16		16
202	Removal of Bridges	Each	1	1	2
202	Removal of Fence	Lin.Ft.	2,100		2,100
203	Unclassified Excavation	Cu.Yd.	54,000		54,000
203	Embankments (Standard)	Cu.Yd.	44,000		44,000
204	Haul	Yd. Mi.	19,800		19,800
204	Haul	Ton Mi.	246,300		246,300
206	Structure Excavation	Cu.Yd.	460	80	540
206	Structure Backfill (Class 3)	Cu.Yd.	340	30	370
209	Wetting	M Gal.	2,240		2,240
210	Reset Mailbox Structures	Each	5		5
210	Relay Pipe (24")	Lin.Ft.	84		84
210	Relay Pipe (30")	Lin.Ft.	30		30
210	Adjust Structures	Each	1		1
304	Aggregate Base Course (Class 3)	Ton	17,200		17,200
304	Aggregate Base Course (Class 7)	Ton	15,600		15,600
403	Hot Bituminous Pavement (Grading F)	Ton	7,600		7,600
411	Asphalt Cement (85-100 Penetration)	Ton	540		540
411	Liquid Asphaltic Material (MC)	Gal.	32,700		32,700
412	Concrete Pavement (10")	Sq.Yd.	144		144
501	Steel Sheet Piling (Type I)	Sq. Ft.	420		420
502	Steel Piling (12 BP 53)	Lin. Ft.		348	348
506	Riprap	Cu.Yd.	70	210	280
507	Bituminous Slope & Ditch Paving	Ton	140		140
509	Structural Steel	L.S.		•	•
509	Structural Steel (Galvanized)	L.S.		•	•
513	Drain Pipe (4" x 2'-0")	Each		6	6
518	Bridge Compression Joint Sealer (Type A)	Lin.Ft.	62		62
601	Concrete, Class A	Cu.Yd.		144	144
602	Reinforcing Steel	Lb.	6,700	23,700	30,400
603	24" Corrugated Steel Pipe	Lin.Ft.	248		248
603	30" Corrugated Steel Pipe	Lin.Ft.	146		146
603	36" Corrugated Steel Pipe	Lin.Ft.	16		16
603	48" Corrugated Steel Pipe	Lin.Ft.	16		16

CONTINUED ON SHEET NO. 4

MICROFILMED

SUMMARY OF APPROXIMATE QUANTITIES

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	S 0011(7)	4	

SPECIFICATION ITEM NO.	ITEM	UNIT	ROADWAY	MAJOR STRUCTURE STR. NO. I 25-0	PROJECT TOTALS
603	22"x 13" Corrugated Steel Pipe Arch	Lin. Ft.	218		218
603	29" x 18" Corrugated Steel Pipe Arch	Lin. Ft.	126		126
603	65" x 40" Corrugated Steel Pipe Arch	Lin. Ft.	48		48
603	72"x 44" Corrugated Steel Pipe Arch	Lin. Ft.	58		58
603	36" Steel End Sections	Each	3		3
603	48" Steel End Sections	Each	2		2
603	29"x 18" Steel End Sections	Each	4		4
603	65"x 40" Steel End Sections	Each	2		2
603	72"x 44" Steel End Sections	Each	2		2
606	Guard Rail Type 3	Lin. Ft.	50		50
607	Corner and Line Brace Posts	Each	7		7
607	Fence (Barbed Wire with Metal Posts)	Lin. Ft.	2,300		2,300
609	Curb & Gutter Type 2 (Section Variable)	Lin. Ft.	108		108
612	Delineators (Type I)	Each	8		8
612	Delineators (Type III)	Each	2		2
617	24" Culvert Pipe	Lin. Ft.	230		230
617	54" Culvert Pipe	Lin. Ft.	142		142
620	Field Laboratory	Each	1		1
621	Maintenance of Detours	Lump Sum	•		•
FORCE ACCOUNT					
	Flagging (Railroad)	Lump Sum	•		•
	Relocate Telephone Poles (Work by Mount Pearl Telephone Co. Forces)	Lump Sum	•		•
	Relocate Power Poles (Work by K. C. Elec. Ass'n. Forces)	Lump Sum	•		•
STATE FORCES					
	Furnishing and Installing Identification Signs	Each	2		2
	Signing & Striping Entire Project (Non-Federal Aid)	Lump Sum	•		•
	Repair Existing Timber Bridge (Non-Federal Aid)	Lump Sum	•		•
RIGHT OF WAY					
	Right of Way Entire Project	Lump Sum	•		•

MICROFILMED

IT IS ESTIMATED THAT MATERIAL FOR SURFACING AND SUBBASE PLANS FOR THE PROJECT IS AVAILABLE IN THE VICINITY OF THE PITS INDICATED IN THE FOLLOWING TABULATIONS. ESTIMATED QUANTITIES INVOLVED IN THESE OPERATIONS ARE SHOWN BELOW.

ALTERATION OF THESE PLANS AS HERE OUTLINED WILL BE ALLOWED ONLY ON WRITTEN PERMISSION FROM THE DEPARTMENT.

FEDERAL ROAD REGION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	S 0011(7)	5	

Rev. I-25-66 G.S. Summary of Earthwork Quantities.

FENCING REQUIREMENTS

STATION	SIDE	REMOVAL OF FENCE	BUILD B.W. FENCE
		LIN. FT.	LIN. FT.
700+21 ~ 710+00	Rt.	1,039	
700+50 ~ 710+00	Lt.	975	
695+90 ~ 710+00	Rt.		1,325
700+50 ~ 710+00	Lt.		960
TOTALS		2,014	2,285

ESTIMATED: 7 CORNER & LINE BRACE POSTS

SUBBASE MATERIAL PLAN

MATERIAL TO BE PLACED	SOURCE	* THICK-NESS	TONS USED	TON MILE
		INCHES	AGGREGATE BASE COURSE CLASS 3	AGGREGATE BASE COURSE
524+34.1 ~ 524+61	CARTWRIGHT PIT	6	27	133
525+28.9 ~ 525+55.9		6	26	128
525+55.9 ~ 530+00		6	44	2,146
530+00 ~ 545+00		8	2,025	9,479
545+00 ~ 574+00		6	2,871	12,245
574+00 ~ 602+00		8	3,780	14,081
602+00 ~ 613+00	COLLINS PIT	0	—	—
613+00 ~ 620+00		5	574	1,828
620+00 ~ 710+00		0	—	—
NO WORK SECTION				
978+00 ~ 1016+22.8	COLLINS PIT	8	5,160	12,188
ESTIMATE FOR IRREGULARITIES			1,490	5,223
LIST OF STRUCTURES			724	2,537
TOTALS			17,118	59,988

*BASED ON CURVE "B"

SURFACING PLAN

MATERIAL TO BE PLACED	SOURCE	TONS USED		TON MILE	
		HOT BITUMINOUS PAVEMENT GRADING F	AGGREGATE BASE COURSE CLASS 7	HOT BITUMINOUS PAVEMENT	AGGREGATE BASE COURSE
524+34.1 ~ 524+61	HEINS PIT	9	17	46	87
525+28.9 ~ 525+55.9		8	17	41	87
525+55.9 ~ 530+00		143	281	738	1,449
530+00 ~ 545+00		480	945	2,564	5,047
545+00 ~ 574+00		928	1,827	5,343	10,520
574+00 ~ 602+00		896	1,764	5,643	11,110
602+00 ~ 613+00		352	693	2,347	4,620
613+00 ~ 620+00		224	441	1,532	3,015
620+00 ~ 710+00		2,880	5,670	22,337	43,977
NO WORK SECTION					
978+00 ~ 1016+22.8		1,223	2,408	17,178	33,823
ESTIMATE FOR IRREGULARITIES		—	703	—	5,687
LIST OF STRUCTURES		376	743	3,041	6,009
TOTALS		7,519	15,509	60,810	125,431

AGGREGATE BASE COURSE ONLY

SUMMARY OF EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION		
Roadway - From Cross Sections & Electronic Computer		41,088
ESTIMATE FOR SUBSIDENCE		4,109
STRUCTURE QUANTITIES AS EXCAVATION		280
STRUCTURE QUANTITIES AS EMBANKMENT		1,250
DITCH EXCAVATION		495
ESTIMATE FOR CUT SLOPE TREATMENT		200
ESTIMATE FOR STRIPPING PITS		6,500

TOTAL CU.YD. 53,922

YARD MILE		
FROM MASS DIAGRAM		17,940
ESTIMATE FOR SUBSIDENCE		1,794

TOTAL YD.MI. 19,734

EMBANKMENTS (STANDARD)		
BASE OF CUTS AND FILLS		12,102
EMBANKMENT (NET)		31,608

TOTAL CU.YD. 43,710

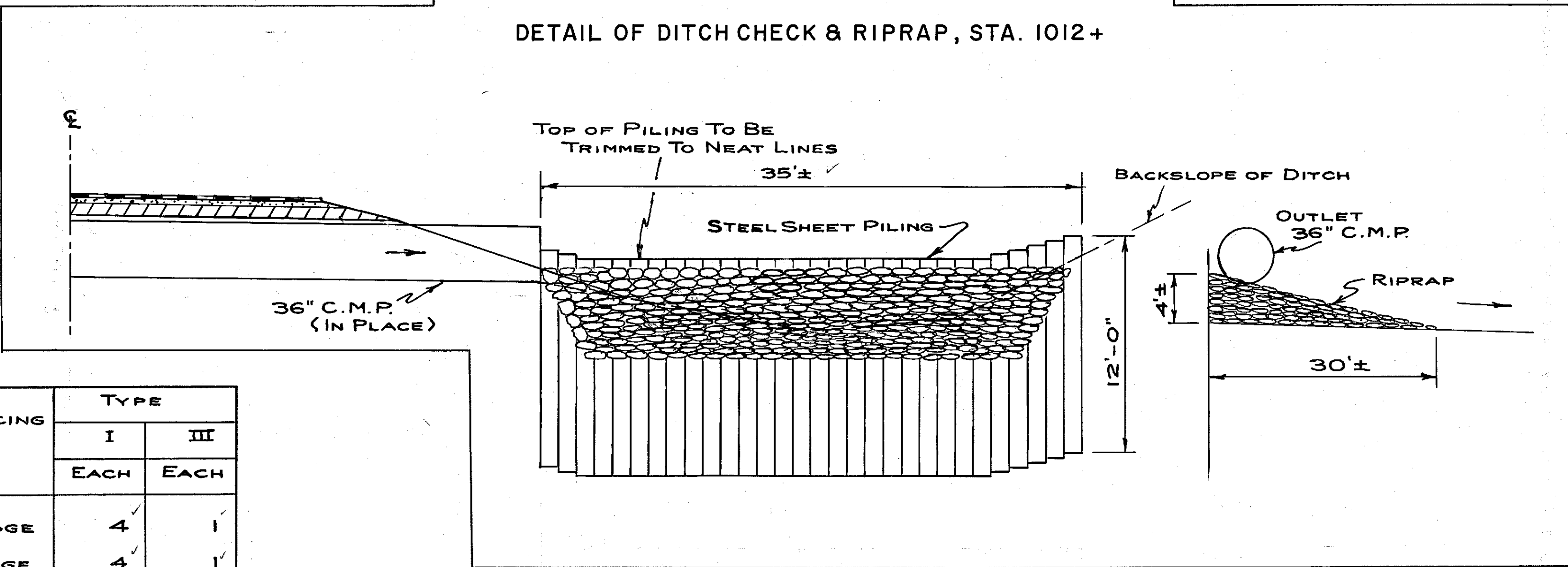
* UNCLASSIFIED EXCAVATION		
Roadway - From Cross Sections & Electronic Computer		41,088
TOTAL	CU.YD.	41,088

* EMBANKMENT (NET)		
Roadway - From Cross Sections & Electronic Computer	CU.YD.	31,608

* EMBANKMENT X FACTOR	CU.YD.	41,088
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*FOR INFORMATION ONLY

DETAIL OF DITCH CHECK & RIPRAP, STA. 1012+



DELINEATORS

STATION	SIDE	SPACING	TYPE	
			I EACH	III EACH
523+01 ~ 524+61	Rt.	BRIDGE	4	1
525+28.9 ~ 526+88.9	Lt.	BRIDGE	4	1
TOTALS			8	2

[illegible]

CONTINUED ON SHEET NO. 7

REGISTERED

STRUCTURE QUANTITIES

FEDERAL ROAD REGION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	S 0011 (7)	7	

[illegible]

✓ Ø TO BE PAID FOR AS "ADJUST STRUCTURES."
▲ REQUIRES ONE CONNECTING BAND.
Ⓐ END SECTIONS INCLUDED IN LENGTH OF PIPE.

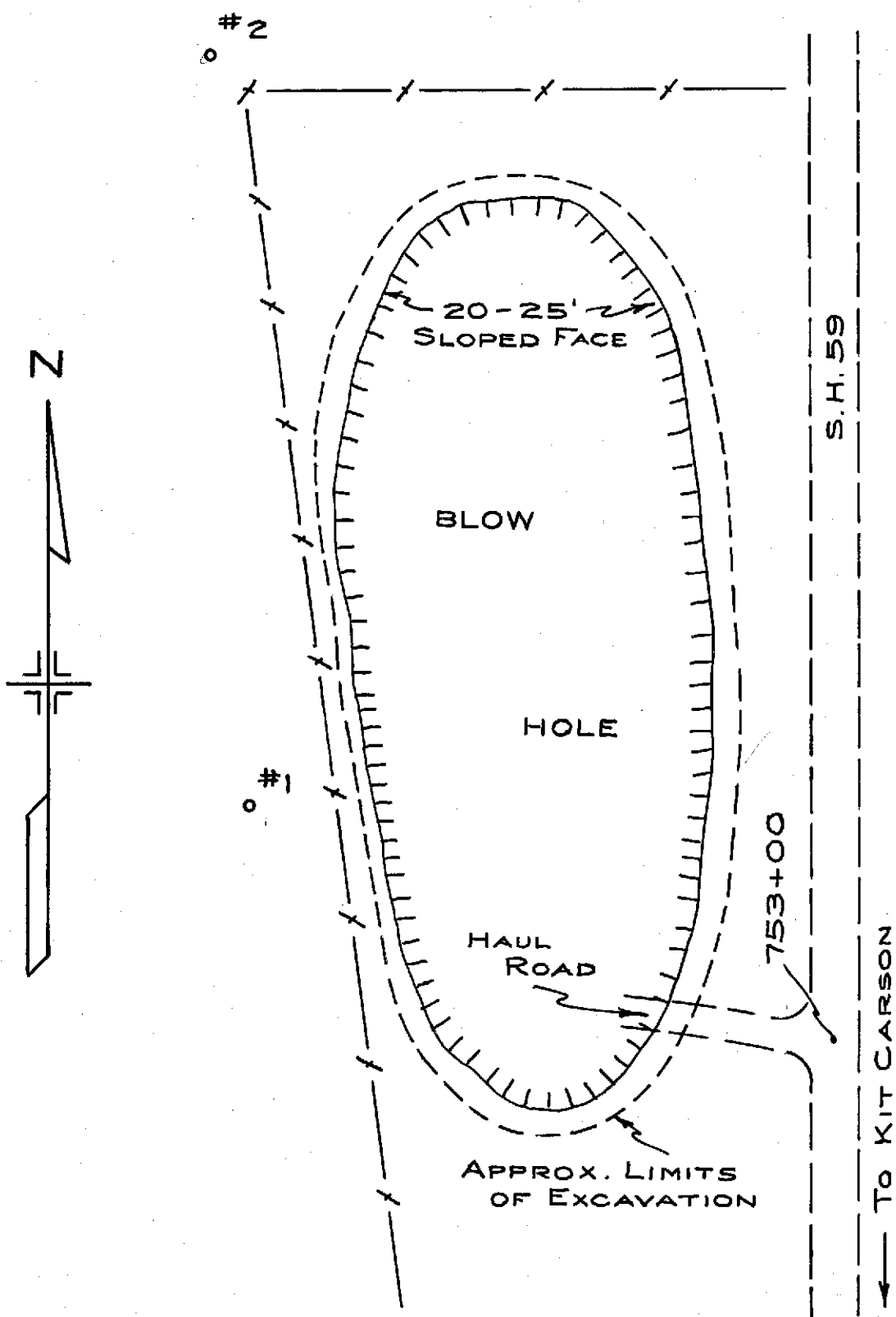
0"H" AS SHOWN ON STANDARD M-617-A
* INCLUDED IN ROADWAY QUANTITIES.

DECLASSIFIED

CARTWRIGHT PIT

MATERIAL: AGGREGATE BASE COURSE (CLASS 3).
LOCATION: E 1/2 SEC 8, T 14 S, R 48 W.
OWNER: PHIL CARTWRIGHT, PERRYTON, TEXAS.
QUANTITY AVAILABLE: 180,000+ CU.YD.
HAUL DISTANCE: 0.6 MI. TO STA. 753+00.
STRIPPING: 1,000 CU.YD.

SAMPLE No.
3454



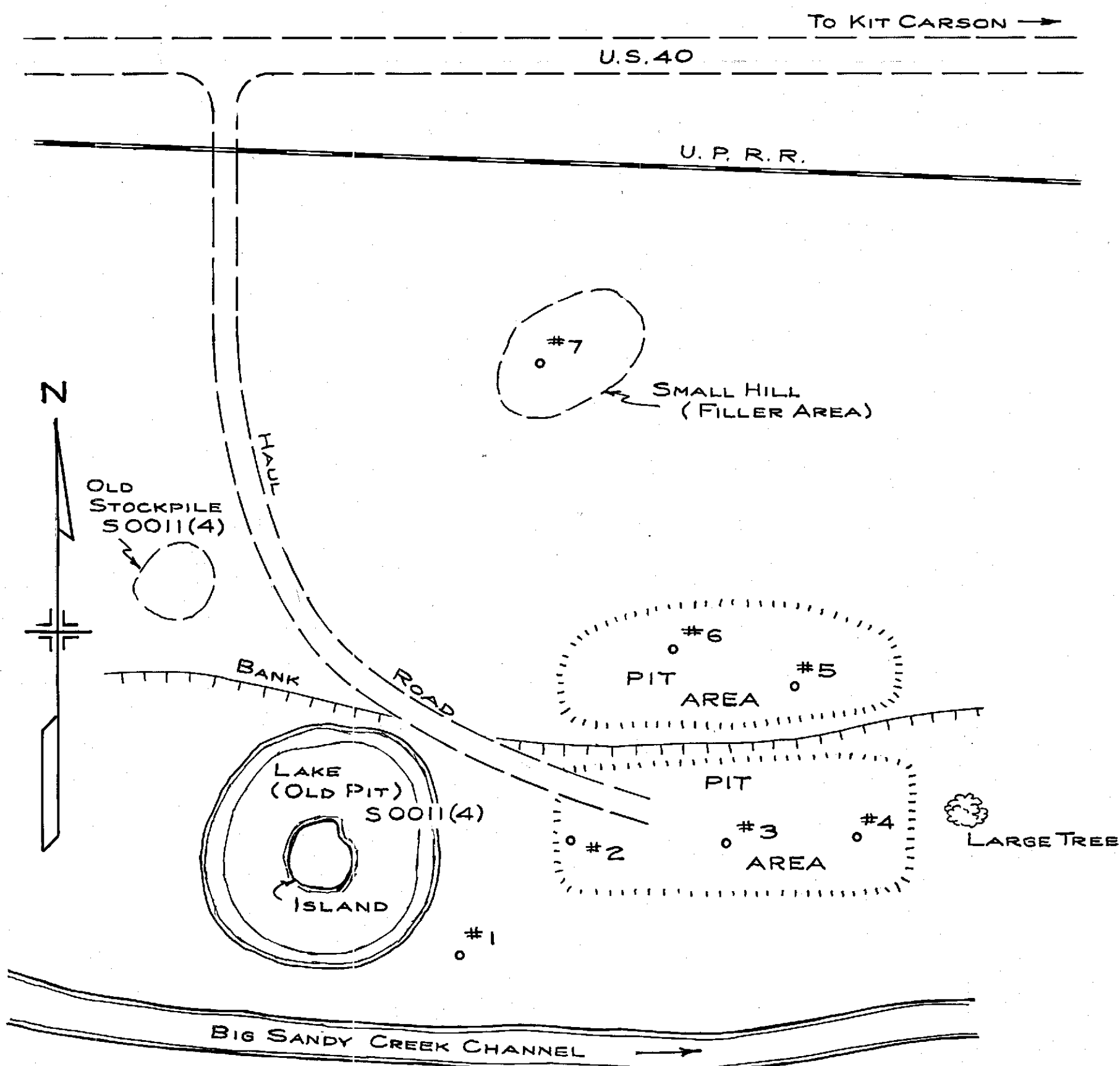
LOG - SAMPLE No. 3454

TEST No.	DEPTH	DESCRIPTION
#1	0.0' - 9.0'	TOP 2' CONSIST OF FINE SAND. 2'-9' CONSISTS OF MEDIUM GRAINED BLOW SAND.
1A	9.0' - 20.0'	CLEAN BLOW SAND.
2	0.0' - 3.0'	FINE BLOW SAND & SILT, POSSIBLE FILLER MATERIAL.

COLLINS PIT

MATERIAL: AGGREGATE BASE COURSE (CLASS 3).
LOCATION: CENTER SEC 7, T 15 S, R 48 W.
OWNER: DON COLLINS, KIT CARSON, COLORADO.
QUANTITY AVAILABLE: 90,000 CU.YD.
HAUL DISTANCE: 2.0 MI. TO STA. 1016+22
STRIPPING: 500 CU.YD.

SAMPLE No.
4308



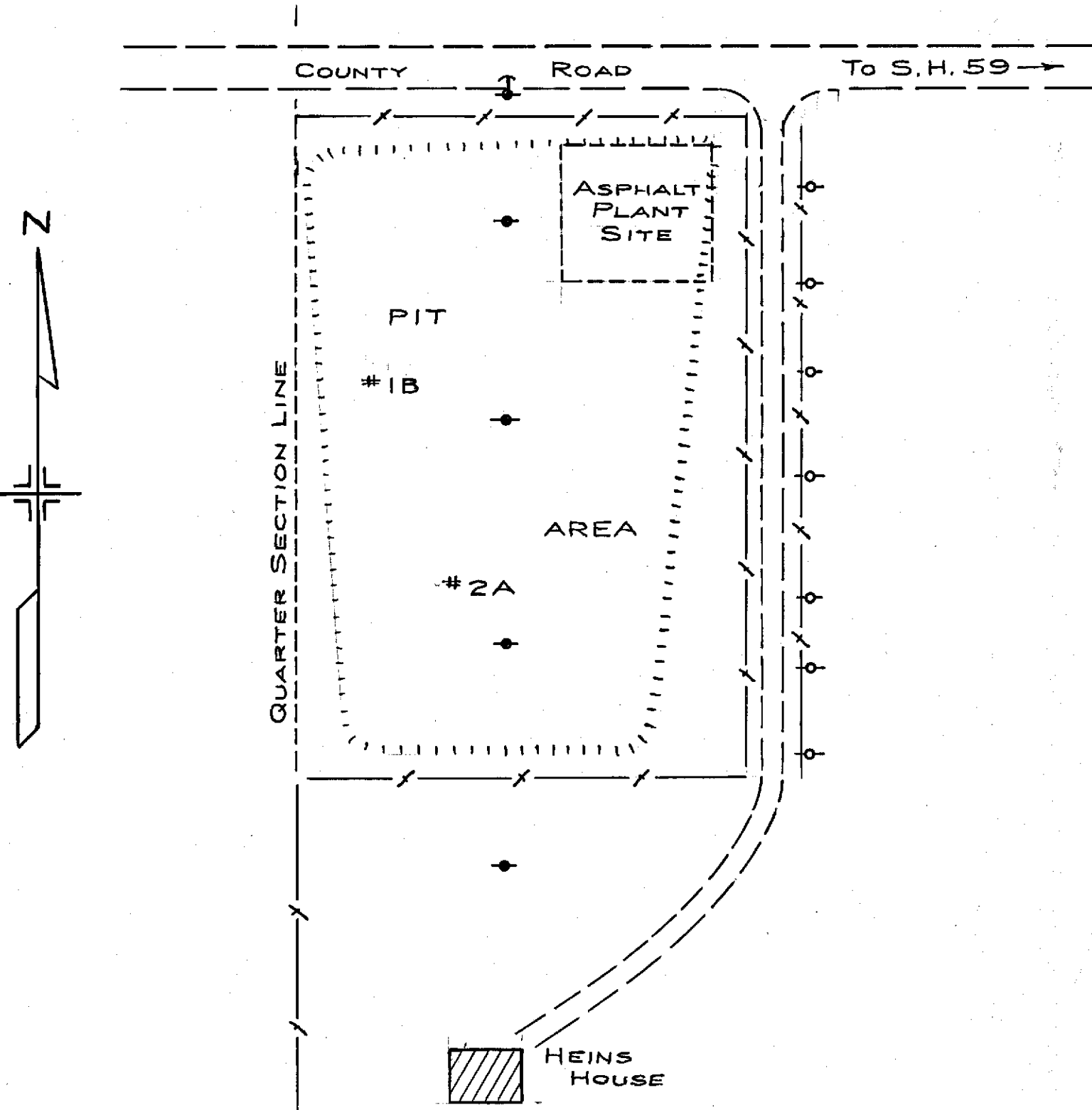
LOG - SAMPLE No. 4308

TEST No.	DEPTH	DESCRIPTION
#1	0'-3'	CLAY & SAND.
1A	3'-6'	SAND & GRAVEL.
2	0'-8'	CLEAN SAND & GRAVEL (USE WITH ROCK FOR ASPHALT). TOO WET TO DRILL.
3	0'-8'	SIMILAR #2
3A	8'+	SAND WITH CLAY
4	0'-7'	CLEAN SAND & GRAVEL.
4A	7'-8'	WET SAND & GRAVEL.
4B	8'+	CLAY
5	0'-5'	FINE SAND
5A	5'-10'	SIMILAR #4
6	0'-4'	FINE SAND
6A	4'-10'	CLEAN SAND & GRAVEL
7	0'-1'	TOPSOIL & GRASS
7A	1'-7'	FILLER

HEINS PIT

MATERIAL: HOT BITUMINOUS PAVEMENT (GRADING F) AGGREGATE BASE COURSE (CLASS 7).
LOCATION: NW 1/4 NE 1/4 SEC. 12, T 13 S, R 49 W.
OWNER: FRANK HEINS, KIT CARSON, COLORADO.
QUANTITY AVAILABLE: 30,000 CU.YD.
HAUL DISTANCE: 5.1 MI. TO STA. 524+34
STRIPPING: 5,000 CU.YD.

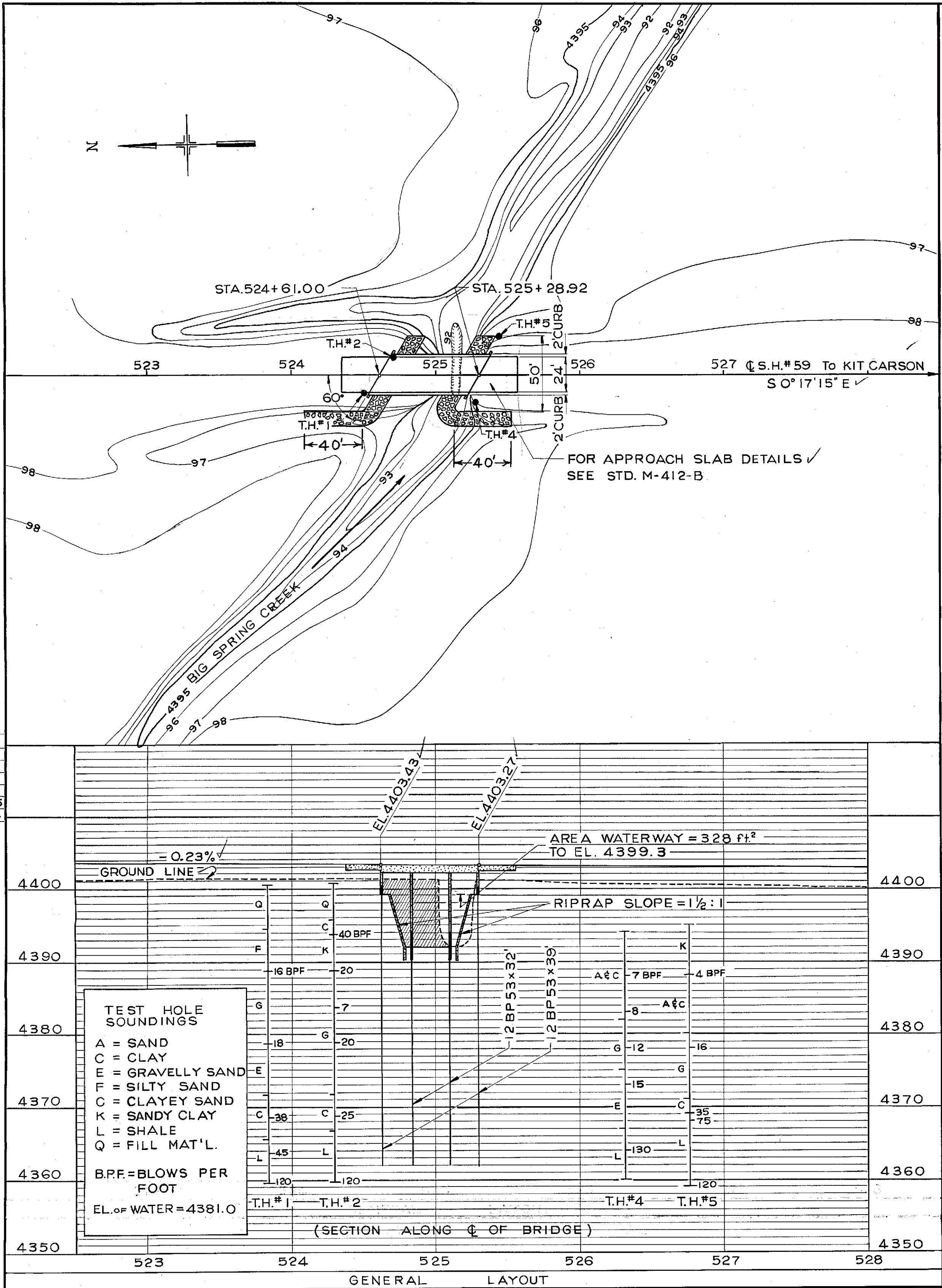
SAMPLE No.
4324



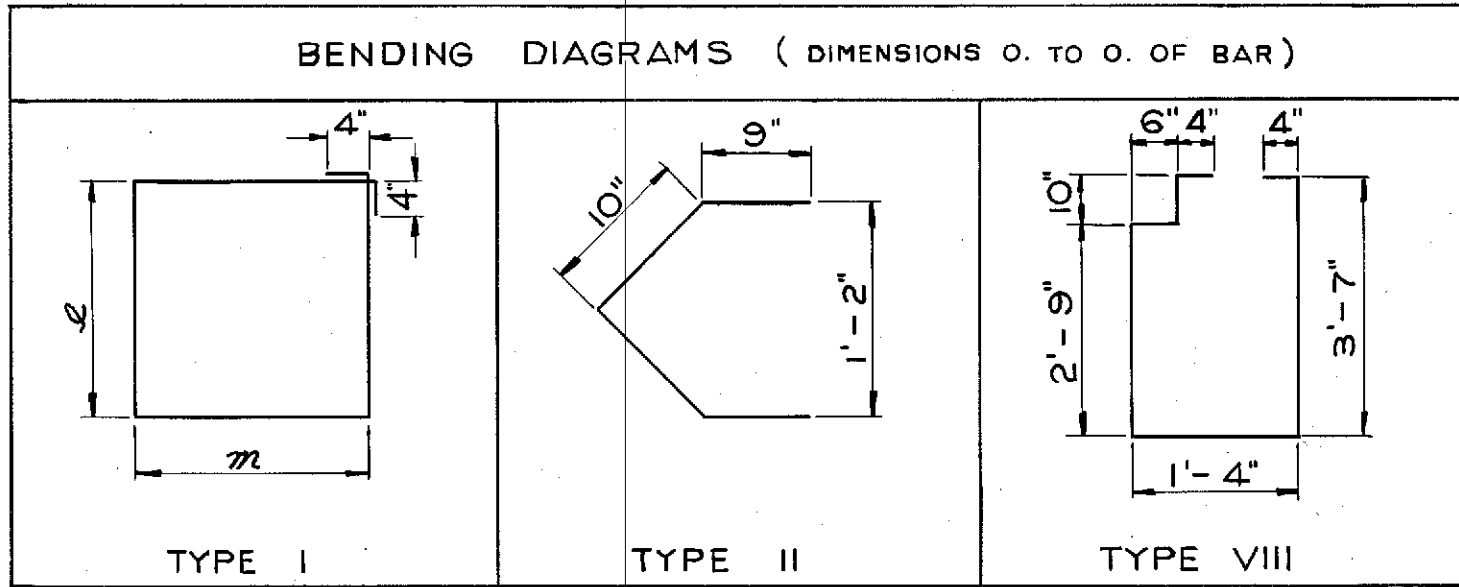
LOG - SAMPLE No. 4324

TEST No.	DEPTH	DESCRIPTION
#1B	5'-11'	SAND & GRAVEL
2A	6'-11'	SAND & GRAVEL

Designed By	Initial	Date
Checked By		
Drawn By		
Checked By		
Traced By	AIT	10-65
Checked By	RRA	10-65



BAR LIST — SUPERSTRUCTURE						
MARK	SIZE	No. REQ'D.	LENGTH	TYPE	DIMENSIONS	
					L	M
401	1/2" φ	36	5' - 6"	I	1' - 5"	1' - 0"
402	1/2" φ	136	7' - 9"	I	1' - 10 1/2"	1' - 8"
501	3/8" φ	87	31' - 11"	STR.		
601	3/4" φ	16	34' - 0"	STR.		
602		31	23' - 3"			
603		31	44' - 4"			
604		54	17' - 6"			
605		24	20' - 0"			
606		12	15' - 0"			
607	3/4" φ	12	10' - 0"	STR.		
701	7/8" φ	50	34' - 0"	STR.		
702		96	13' - 6"			
703		48	7' - 0"			
704	7/8" φ	24	17' - 0"	STR.		
SUMMARY						
1252 LIN. FT. 1/2" φ @ 0.668#/FT. = 836						
2777 LIN. FT. 3/8" φ @ 1.043#/FT. = 2896						
4364 LIN. FT. 3/4" φ @ 1.502#/FT. = 6555						
3740 LIN. FT. 7/8" φ @ 2.044#/FT. = 7644						
TOTAL = 17931 LB.						



REVISIONS

FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	50011 (7)	9	

SUMMARY OF QUANTITIES							
ITEM	DESCRIPTION	UNIT	SUPER - STRUCTURE	ABUT. No. 1	PIER No. 2	PIER No. 3	ABUT. No. 4
203	UNCLASSIFIED EXCAVATION	CU.YD.					
206	STRUCTURE EXCAVATION	CU.YD.		31	11	11	27
206	STRUCTURE BACKFILL (CLASS 3)	CU.YD.		7	8	8	7
502	STEEL PILING (12 BP 53)	LIN. FT.		78	96	96	78
506	RIPRAP	CU.YD.		105			105
509	STRUCTURAL STEEL	L.S.					LUMP SUM
509	STRUCTURAL STEEL (GALV.)	L.S.					LUMP SUM
513	DRAIN PIPE (4" φ x 2'-0")	EA.	6				6
601	CONCRETE, CLASS A	CU.YD.	82.0	9.1	21.9	21.9	9.1
602	REINFORCING STEEL	LB.	17931	1335	1540	1540	1335
202	REMOVAL OF BRIDGE	EA.					1

- ① DESIGN WEIGHT = 680 LB.
② DESIGN WEIGHT = 6285 LB.
③ INCLUDED IN ROADWAY QUANTITIES

BAR LIST — ABUT. NO. 1 (NO. 4 SIMILAR)						
MARK	SIZE	No. REQ'D.	LENGTH	TYPE	DIMENSIONS	
					L	M
403	1/2" φ	33	9' - 8"	VIII		
404		4	37' - 0"	STR.		
407		4	3' - 3"	STR.		
408	1/2" φ	6	4' - 9"	STR.		
901	1 1/8" φ	7	37' - 0"	STR.		
902	1 1/8" φ	1	31' - 11"	STR.		
SUMMARY						
518 LIN. FT. 1/2" φ @ 0.668#/FT. = 346						
291 LIN. FT. 1 1/8" φ @ 3.400#/FT. = 989						
TOTAL = 1335 LB.						

BAR LIST — PIER NO. 2 (NO. 3 SIMILAR)						
MARK	SIZE	No. REQ'D.	LENGTH	TYPE	DIMENSIONS	
					L	M
405	1/2" φ	20	30' - 8"	STR.		
406	1/2" φ	24	3' - 2"	II		
502	5/8" φ	33	1' - 6"	STR.		
503	5/8" φ	31	25' - 4"	I	11' - 1"	1' - 3"
504	5/8" φ	2	11' - 4"	STR.		
601	3/4" φ	4	30' - 8"	STR.		
SUMMARY						
689 LIN. FT. 1/2" φ @ 0.668#/FT. = 460						
858 LIN. FT. 5/8" φ @ 1.043#/FT. = 895						
123 LIN. FT. 3/4" φ @ 1.502#/FT. = 185						
TOTAL = 1540 LB.						

GENERAL NOTES

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

ALL CONCRETE SHALL BE CLASS "A".

ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE STEEL OF A DEFORMED TYPE. EACH BAR SHALL BE TAGGED WITH THE BAR DESIGNATION AND STATION NUMBER OF THE PROJECT.

IF BY PERMISSION OF THE ENGINEER PRIMARY BARS ARE SPICED, THEY SHALL LAP A MINIMUM OF 28 DIAMETERS FOR BARS NEAR TOPS OF BEAMS HAVING MORE THAN 12 INCHES OF CONCRETE UNDER THE BARS, AND 17 DIAMETERS FOR BARS NEAR BOTTOM OF MEMBERS. SECONDARY BARS WHEN SPICED SHALL LAP 17 DIAMETERS OF THE BAR.

DIMENSIONS FOR REINFORCING STEEL NOT SHOWN AS CLEAR SHALL BE TO THE CENTERLINE OF THE BAR.

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

FOOTINGS IN ROCK SHALL BE POURED OUT TO ROCK AND NOT FORMED.

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

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

ALL CONCRETE SURFACES MARKED WITH THE SYMBOL / AS SHOWN ON SHEET NO. 13 SHALL RECEIVE CLASS "2" SURFACE FINISH.

ALL STRUCTURAL STEEL SHALL BE PAINTED IN ACCORDANCE WITH ITEM NO. 38 FOR GREEN PAINT.

ALL RIVETS SHALL BE 3/4 INCH DIAMETER UNLESS OTHERWISE NOTED.

HIGH TENSILE BOLTS MAY BE SUBSTITUTED FOR FIELD RIVETS AT THE CONTRACTOR'S OPTION. BOLTS SHALL BE FURNISHED IN THE AMOUNT OF FIVE PERCENT IN EXCESS OF THE NOMINAL NUMBER REQUIRED FOR EACH SIZE AND LENGTH.

WELDING SHALL CONFORM TO THE LATEST EDITION OF THE A.W.S. STANDARD SPECIFICATIONS FOR WELDING HIGHWAY BRIDGES.

FOR WELDED GIRDERS ALL SHOP BUTT WELDS IN FLANGES AND WEBS SHALL BE MADE BEFORE WELDING INTO GIRDER.

WHEN CALLED FOR IN THE SPECIAL PROVISIONS, SHOP WELDS SHALL BE INSPECTED RADIOGRAPHICALLY AND BY THE PENETRANT DYE METHOD.

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

ALL STRUCTURAL STEEL NOT OTHERWISE NOTED SHALL BE A.S.T.M. A36-62 T.

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

LOADING DATA

LIVE LOAD = A.A.S.H.O. HS 20-44
DEAD LOAD ASSUMES 15 LBS. PER SQ. FT. ADDITIONAL WEARING SURFACE WHICH INCLUDES THE 1/2 INCH CONCRETE MONOLITHIC WEARING SURFACE SHOWN.

DESIGNING DATA

A.A.S.H.O. UNIT STRESSES, EXCEPT AS NOTED.
A7 Structural Steel $f_s = 20000$ lbs. per sq. in.
Concrete $f_c = 12000$ lbs. per sq. in.
 $n = 10$

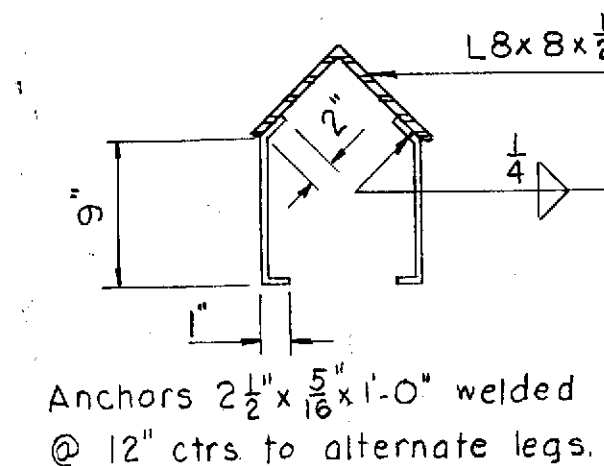
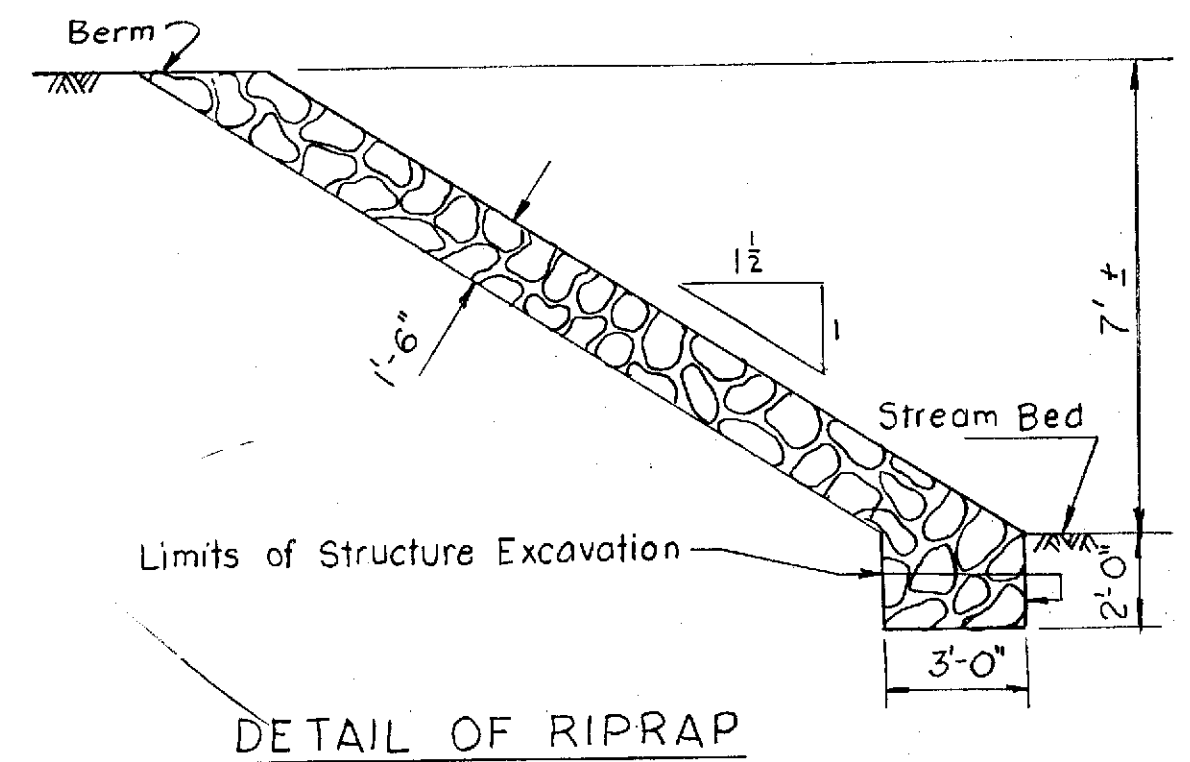
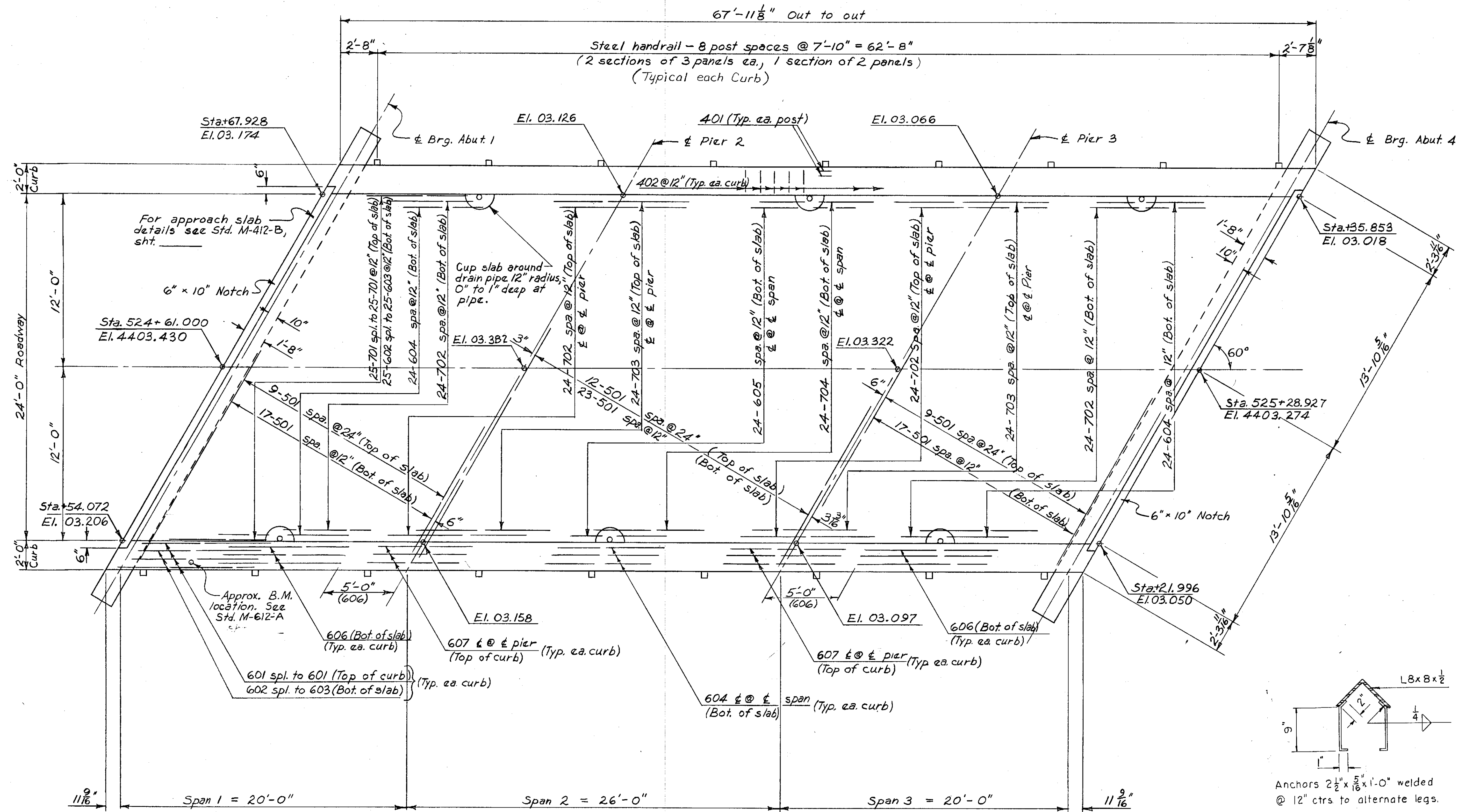
COLORADO
DEPARTMENT OF HIGHWAYS
3 SPANS CONTINUOUS CONC. SLAB
(20'-26'-20') 24' R'D WY. 2' CURBS.
STD. STEEL RAIL. SKEW = 60°

GENERAL LAYOUT & NOTES,
SUMMARY OF QUANTITIES,
BAR LIST

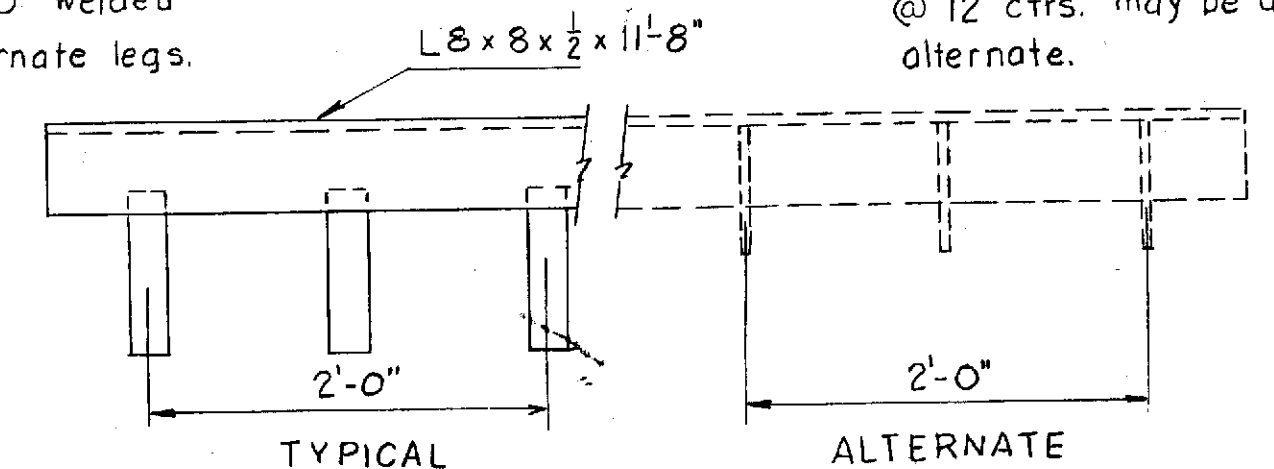
Across BIG SPRING CREEK
Sta. 524+61.00 TO 525+28.92
Near KIT CARSON Sec. 20 & 21 T. 13 S. R. 48 W.
Designed by *R. Kurawsky*
Made by Bridge Engineer
Checked by Date: NOV. 27, 1965

STRUCTURE NO. I - 25 - 0

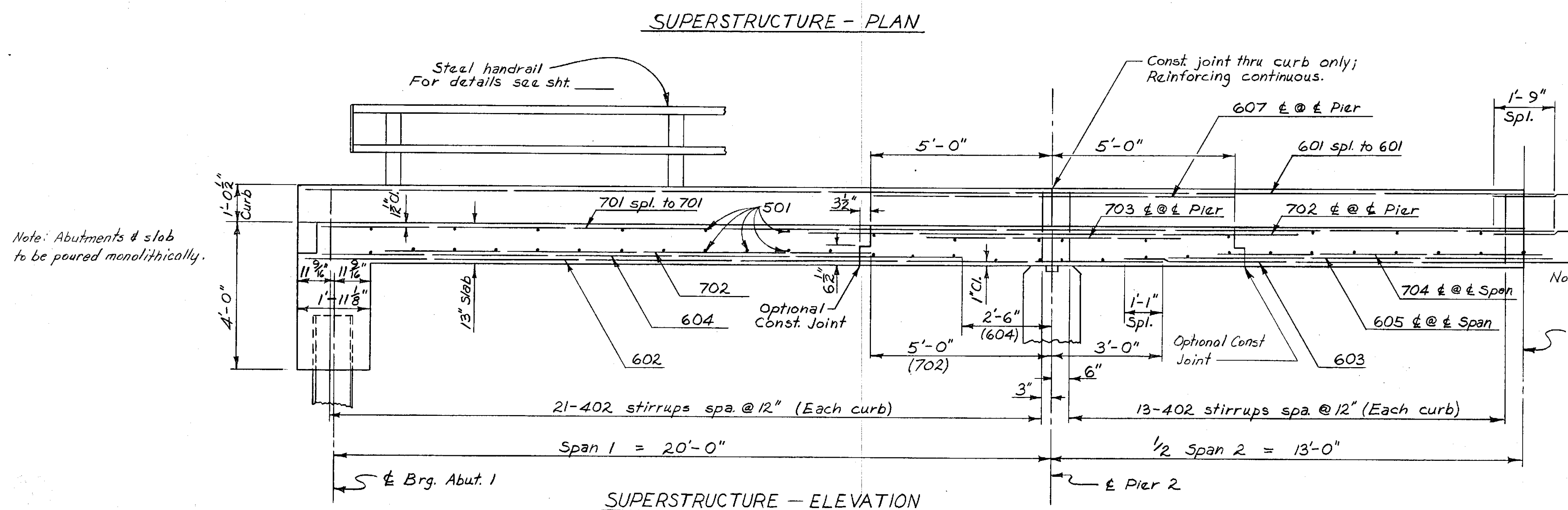
FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	50011(7)	10	



Granular flux filled concrete anchors.
 $\frac{1}{2}\phi$, automatically end welded, spaced
 @ 12" ctrs. may be used as an
 alternate.



PIER NOSE ANGLE



Note: Maximum Deadload Deflection
= $\frac{1}{8}"$ @ ϕ Spon 2

Symm. about $\frac{1}{2}$ Span 2
Except as noted.

Note: Shoring shall remain in place full length until all slab pours reach a min. strength of 2500 psi.

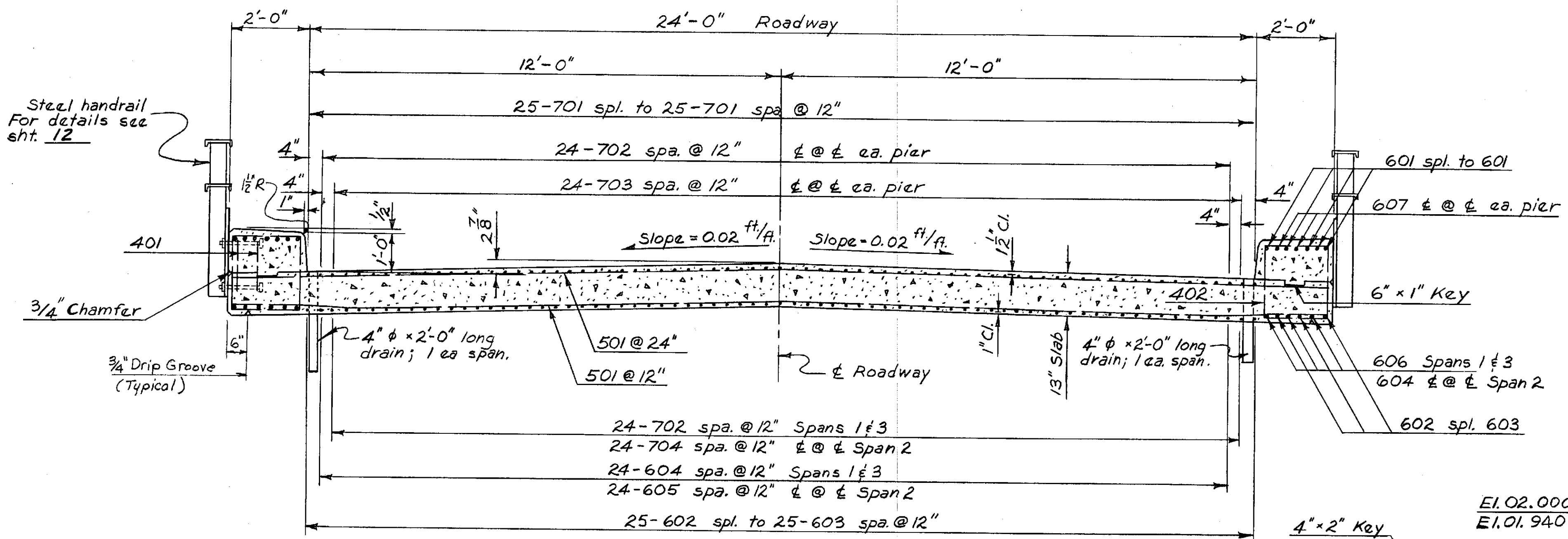
DEPARTMENT OF HIGHWAYS STATE OF COLORADO

SUPERSTRUCTURE

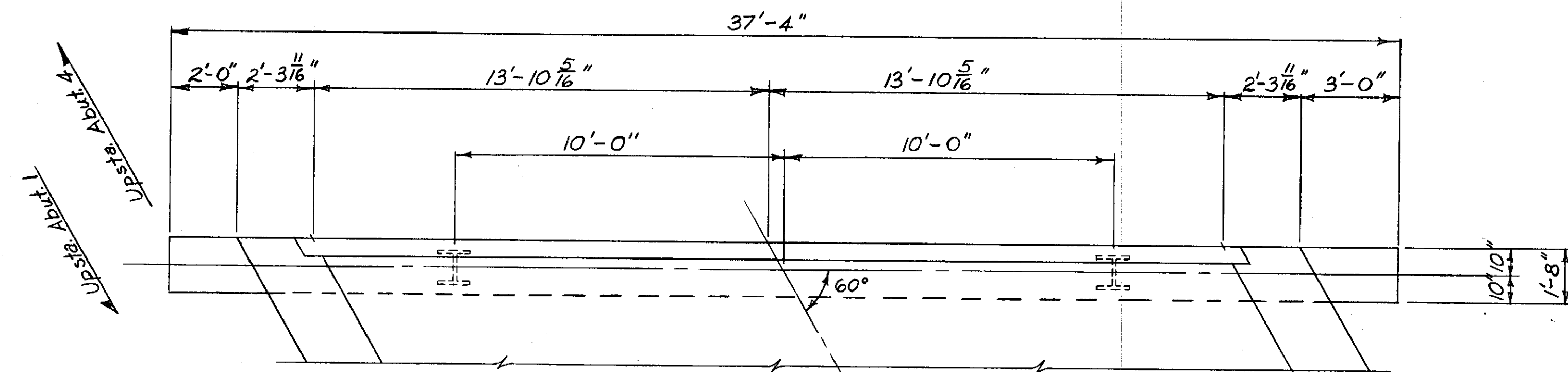
Across <u>Big Spring Creek</u>	
Sta. <u>524+61.0 to 525+28.9</u>	
Near <u>Kit Carson</u> Sec. <u>20/21 T.13S R.48W</u>	
Designed by <u>DWI</u>	Approved by <u>Rehman</u>
Made by <u>DWI</u>	Bridge Engineer
Checked by	Date: <u>Nov. 27, 1965</u>

STRUCTURE NO. 1-25-0

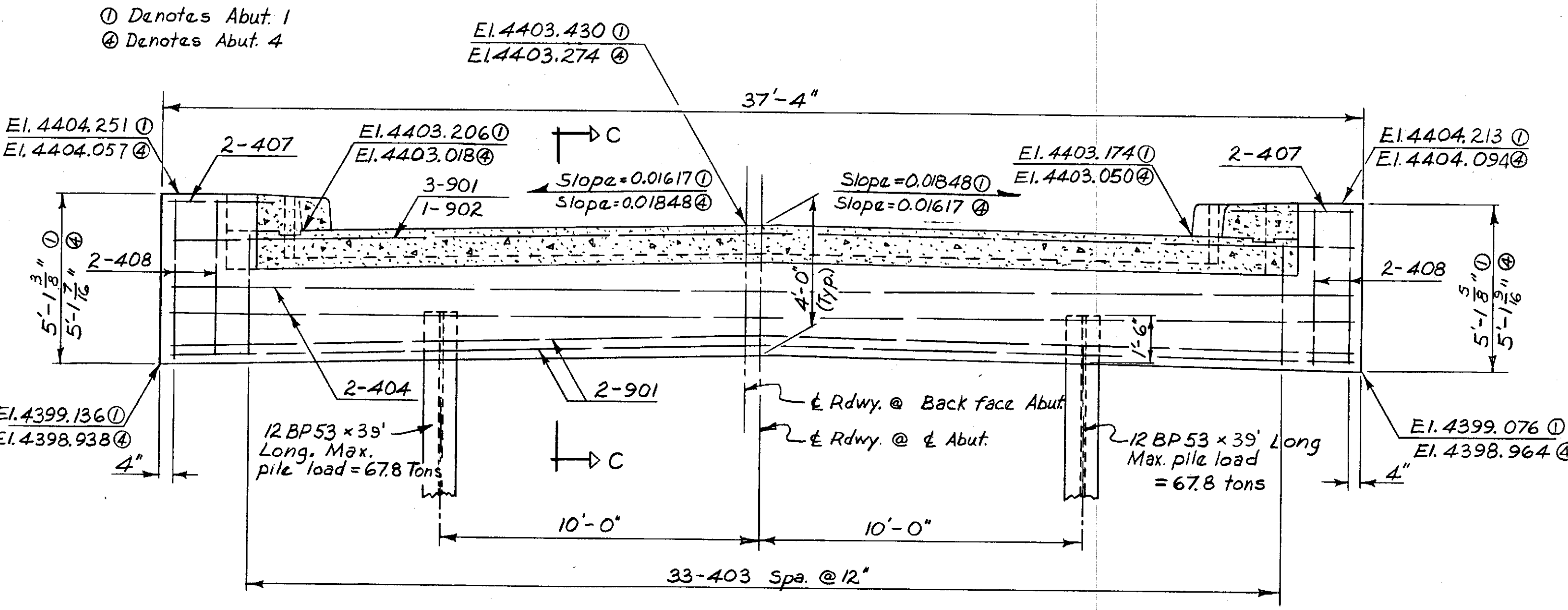
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9	COLO.	50011(7)	11	



ROADWAY SECTION

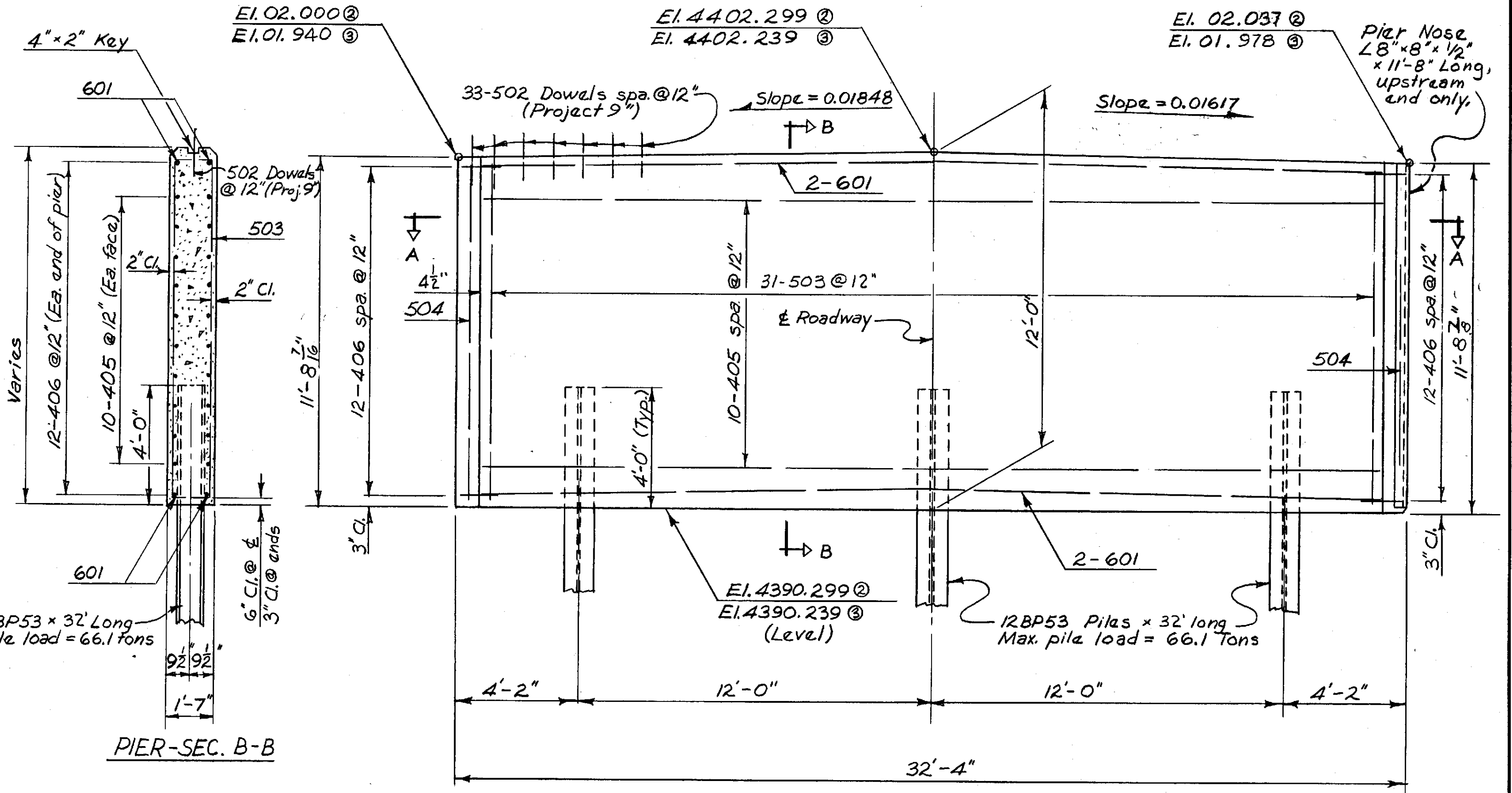


ABUTMENT - PLAN



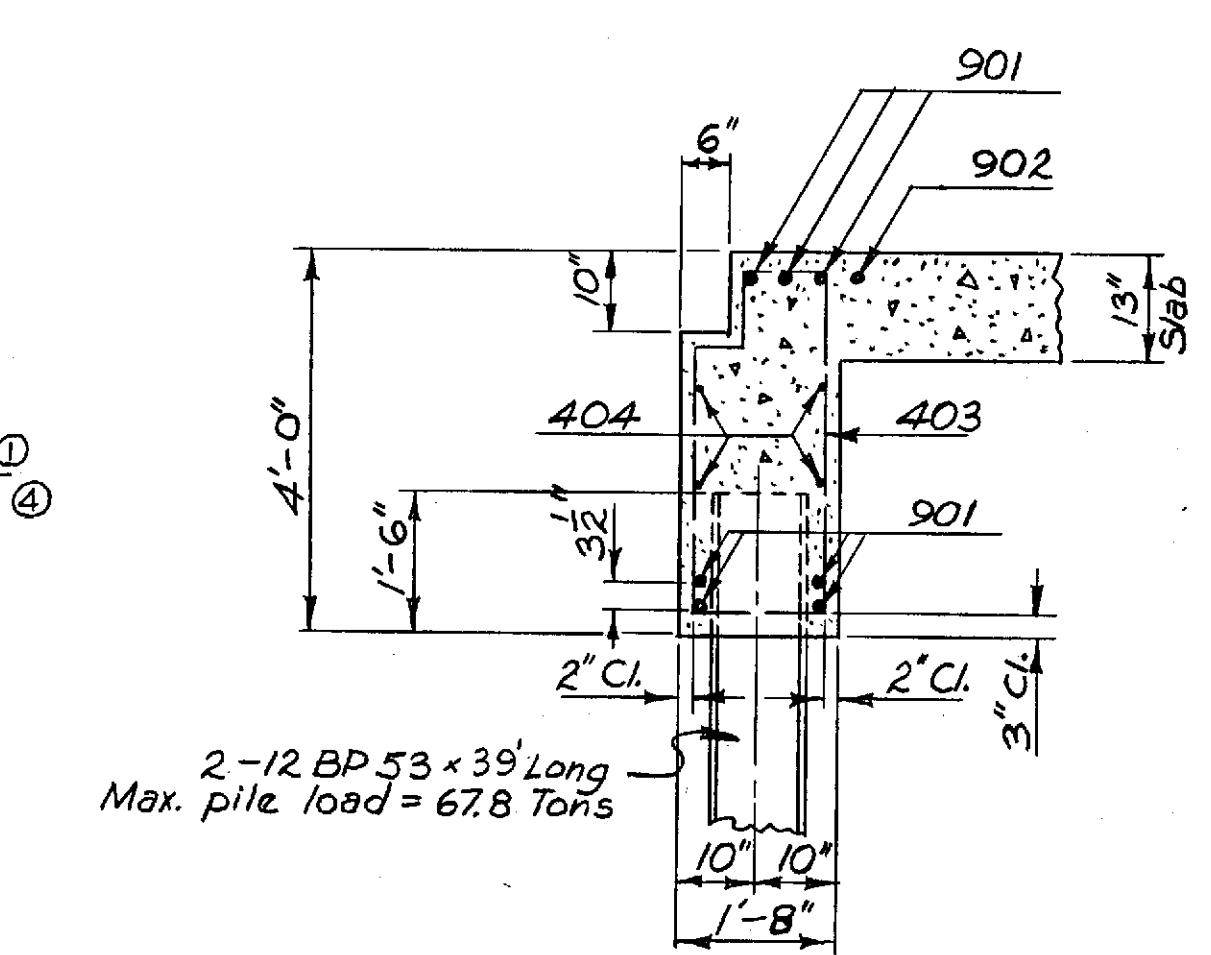
ABUTMENT - ELEVATION

Note: Elevations shown are at back face.



PIER - ELEVATION

Looking Upstream

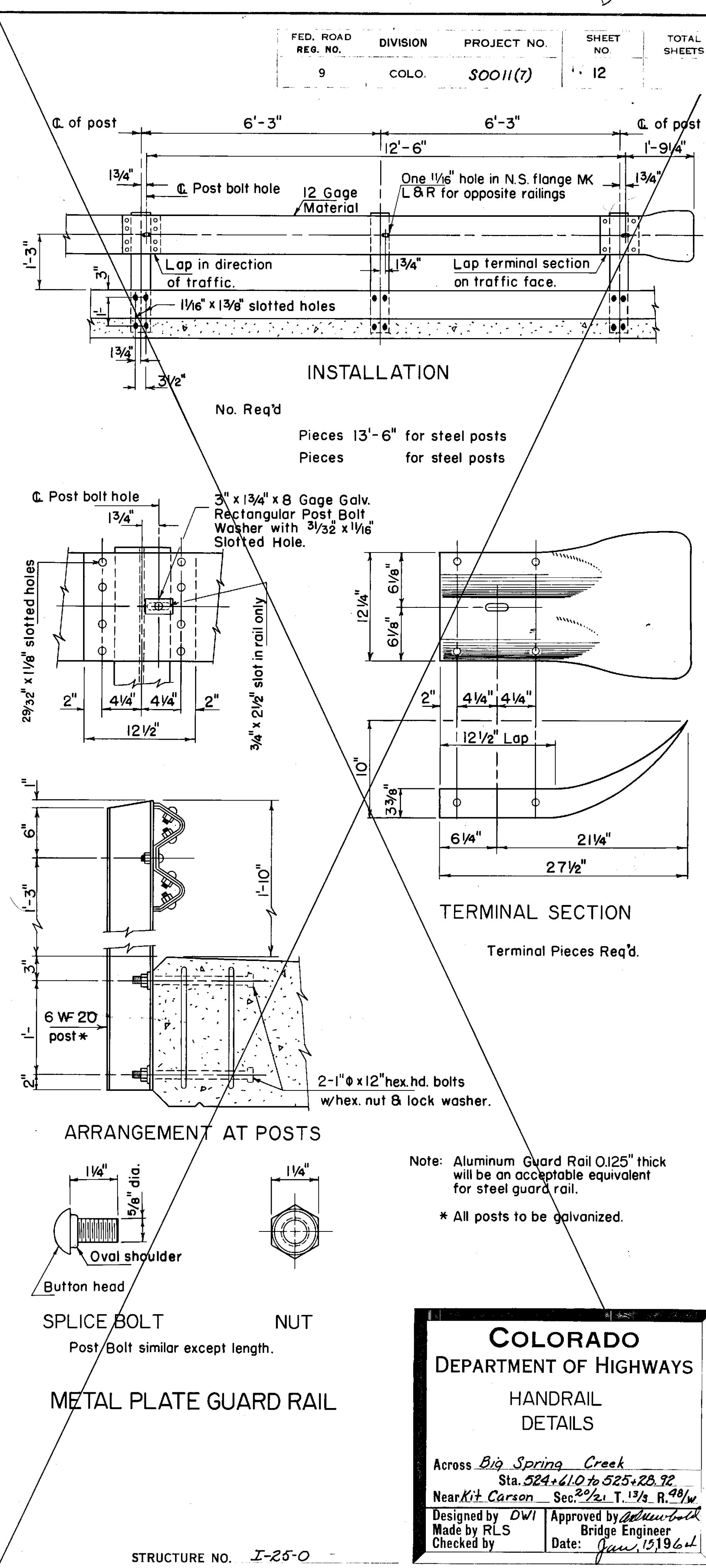
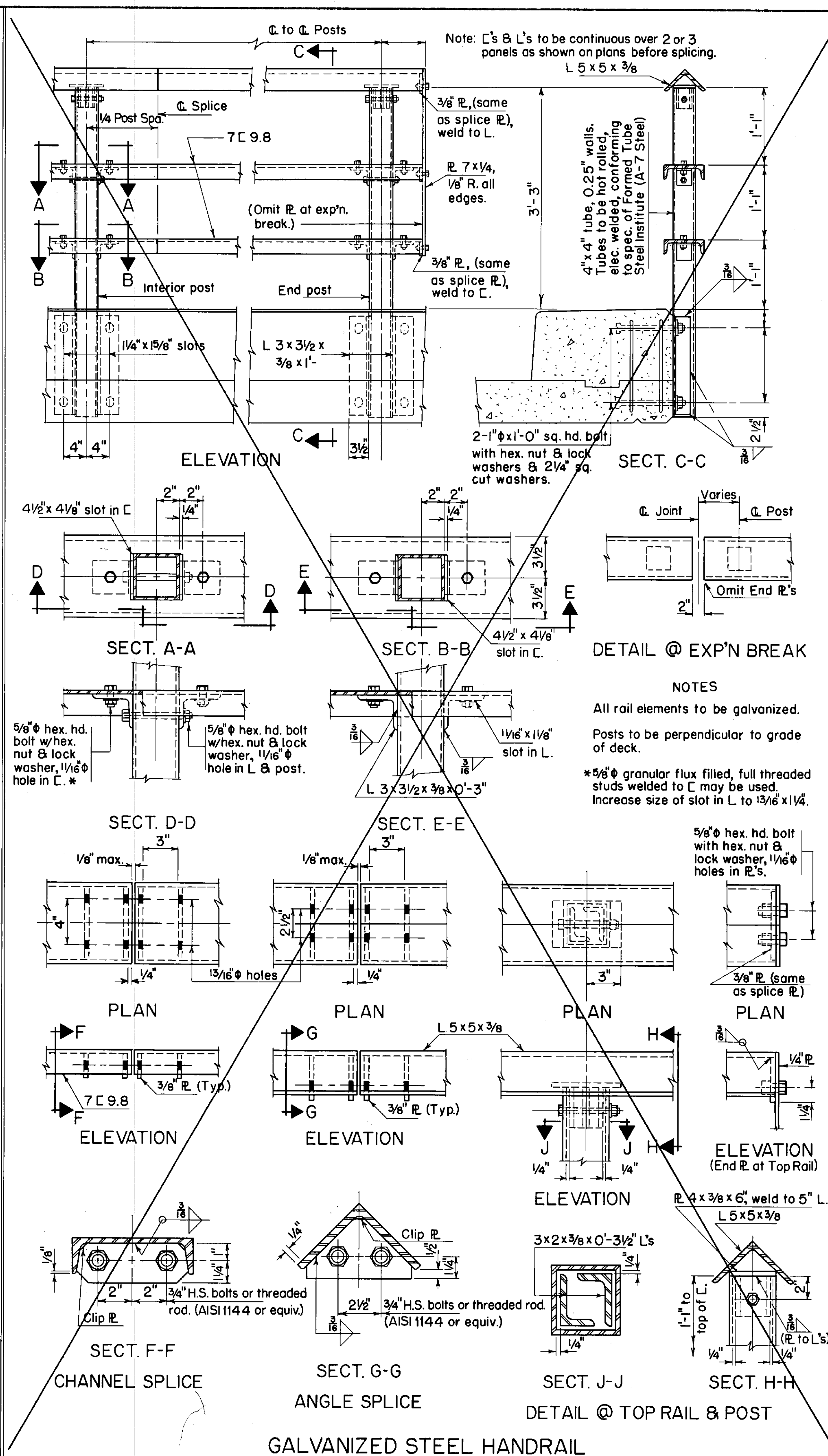
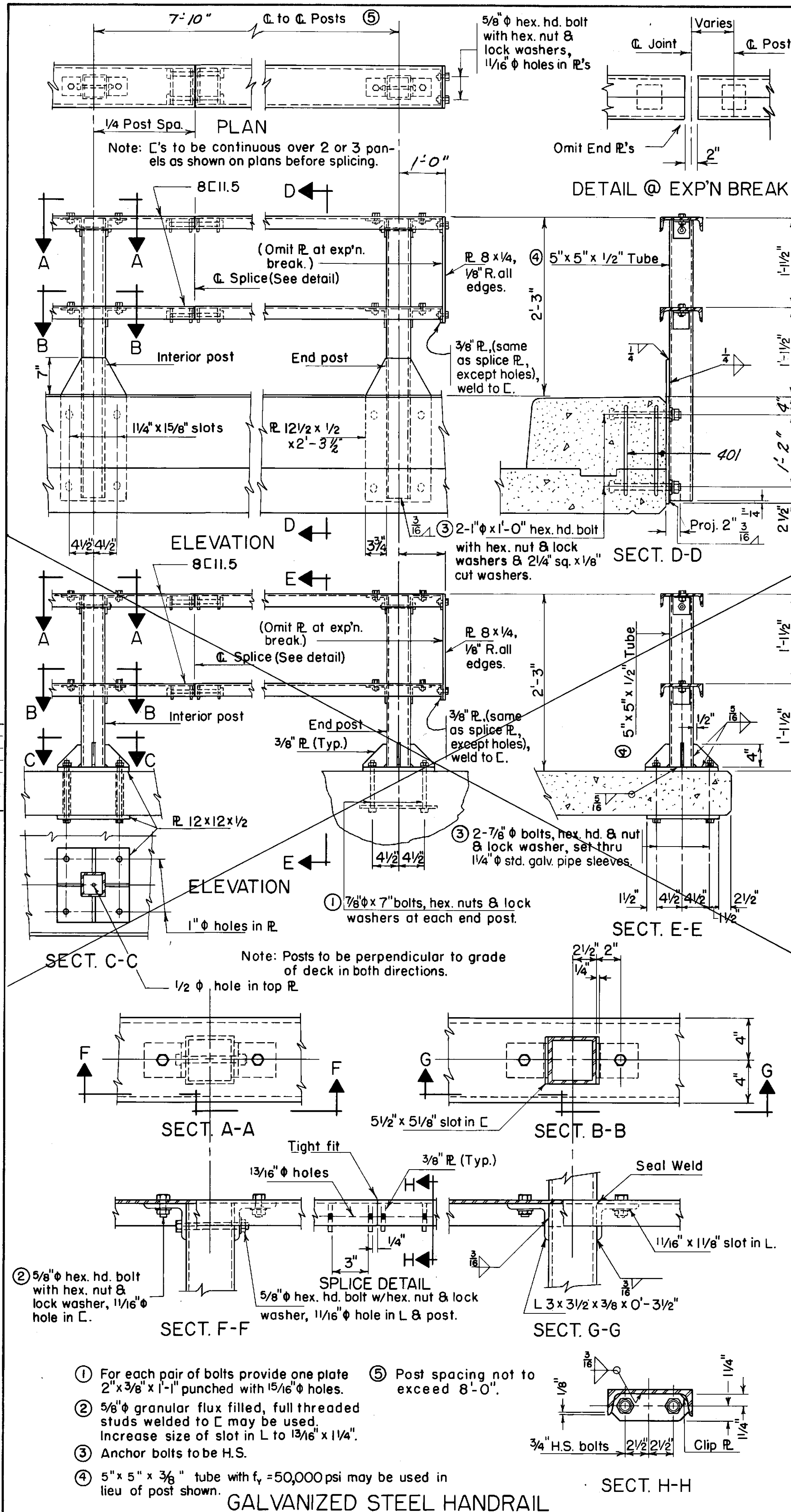


ABUT - SEC. C-C

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
PIER, ABUTMENT,
ROADWAY SECTION

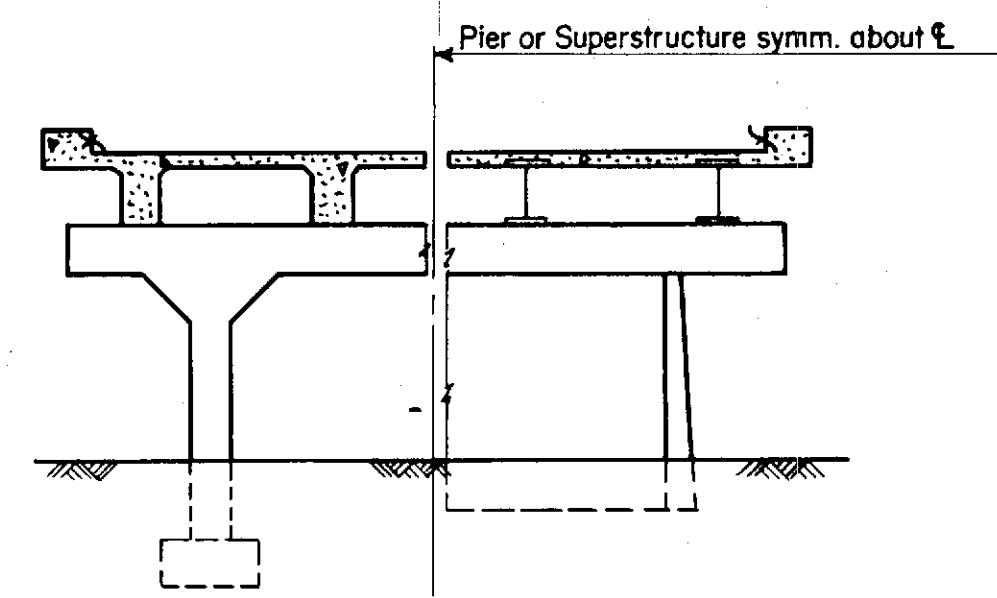
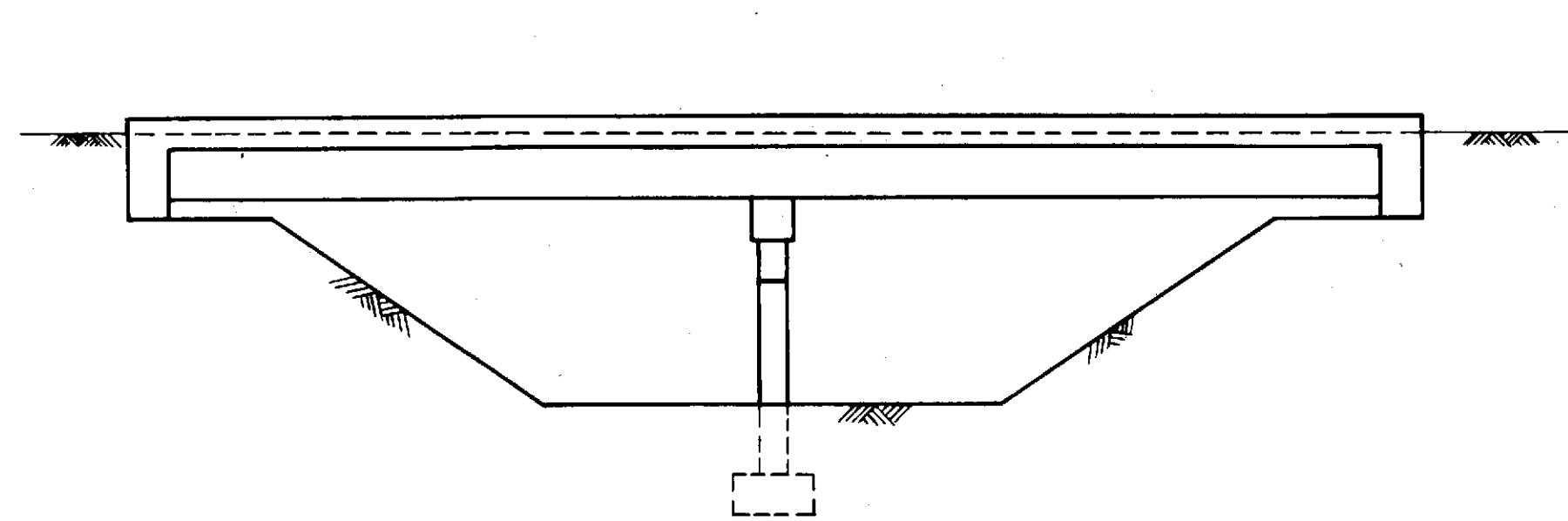
Across Big Spring Creek
Sta. 524+61.0 to 525+28.9
Near Kit Carson Sec. 20/21 T. 13 S. R. 48 W.
Designed by DWI Approved by R. H. W. R. 48 W.
Made by DWI Bridge Engineer
Checked by Date: Nov. 27, 1965

STRUCTURE NO. I-25-0



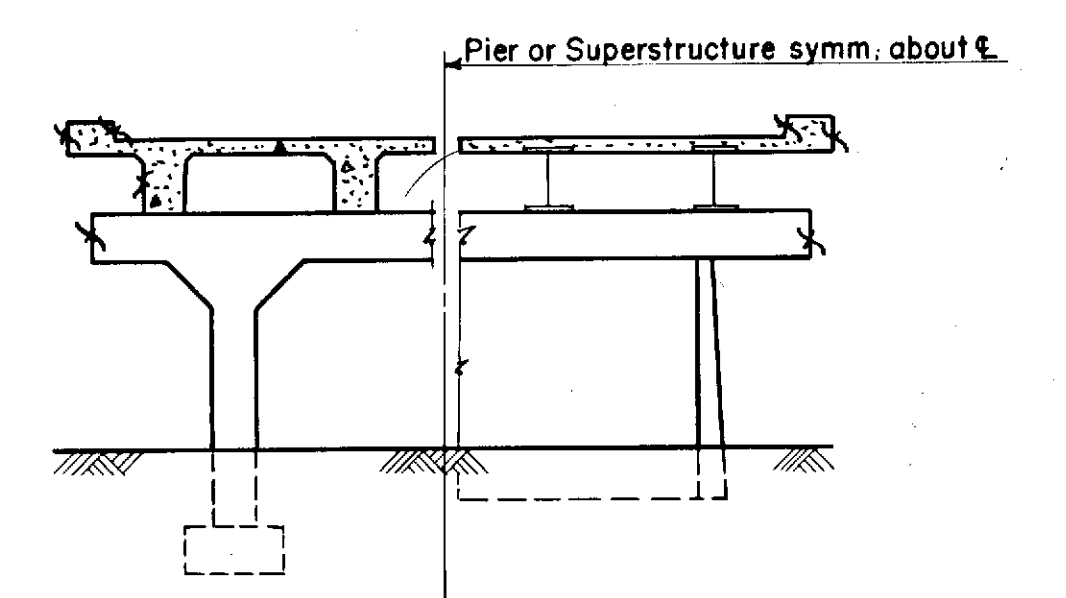
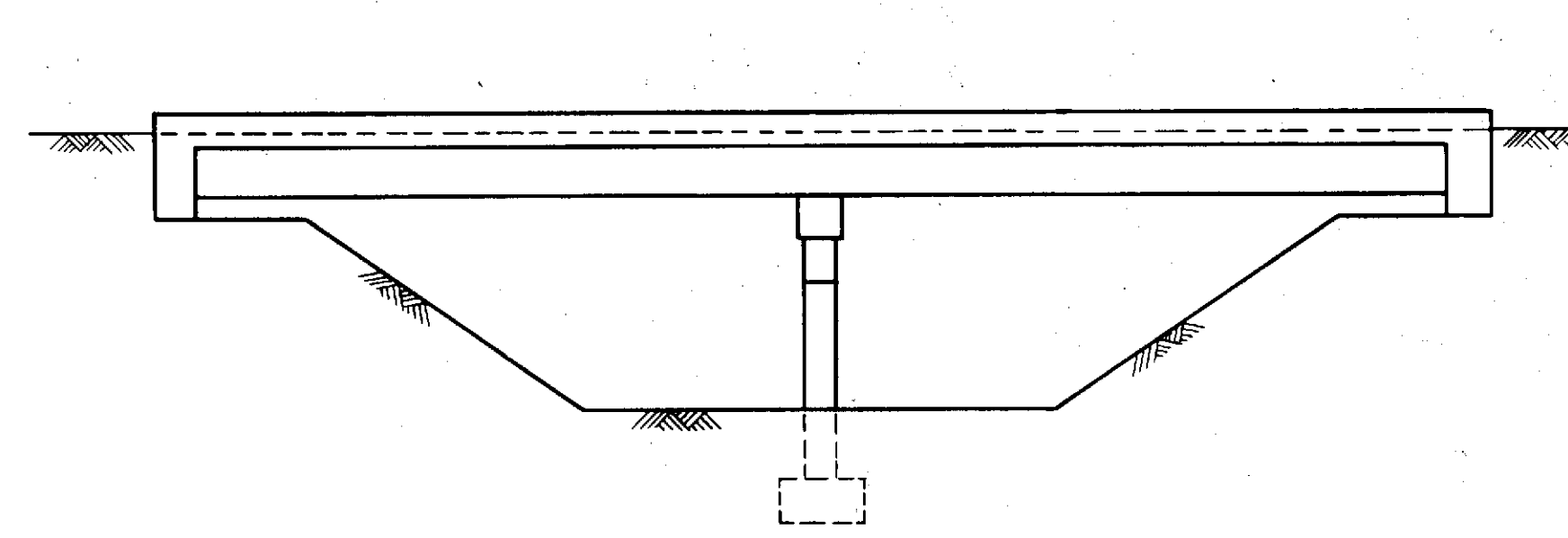
COLORADO DEPARTMENT OF HIGHWAYS HANDRAIL DETAILS	
Across <i>Big Spring Creek</i> Sta. <i>524+61.0</i> to <i>525+28.92</i> Near <i>Kit Carson</i> Sec. <i>20 21</i> T. <i>13 S</i> R. <i>40 W</i>	Designed by <i>DWI</i> Made by <i>RLS</i> Checked by _____
Approved by <i>William Bull</i> Bridge Engineer Date: <i>Jan 13, 1964</i>	

FED. ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	30011(7)	13	



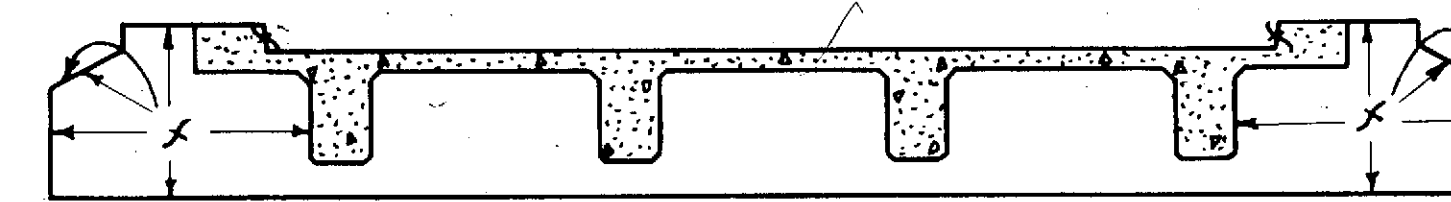
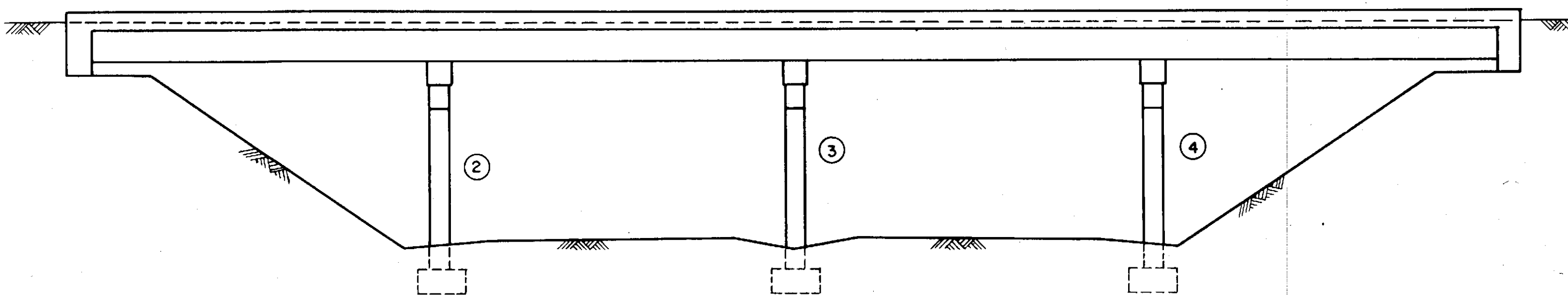
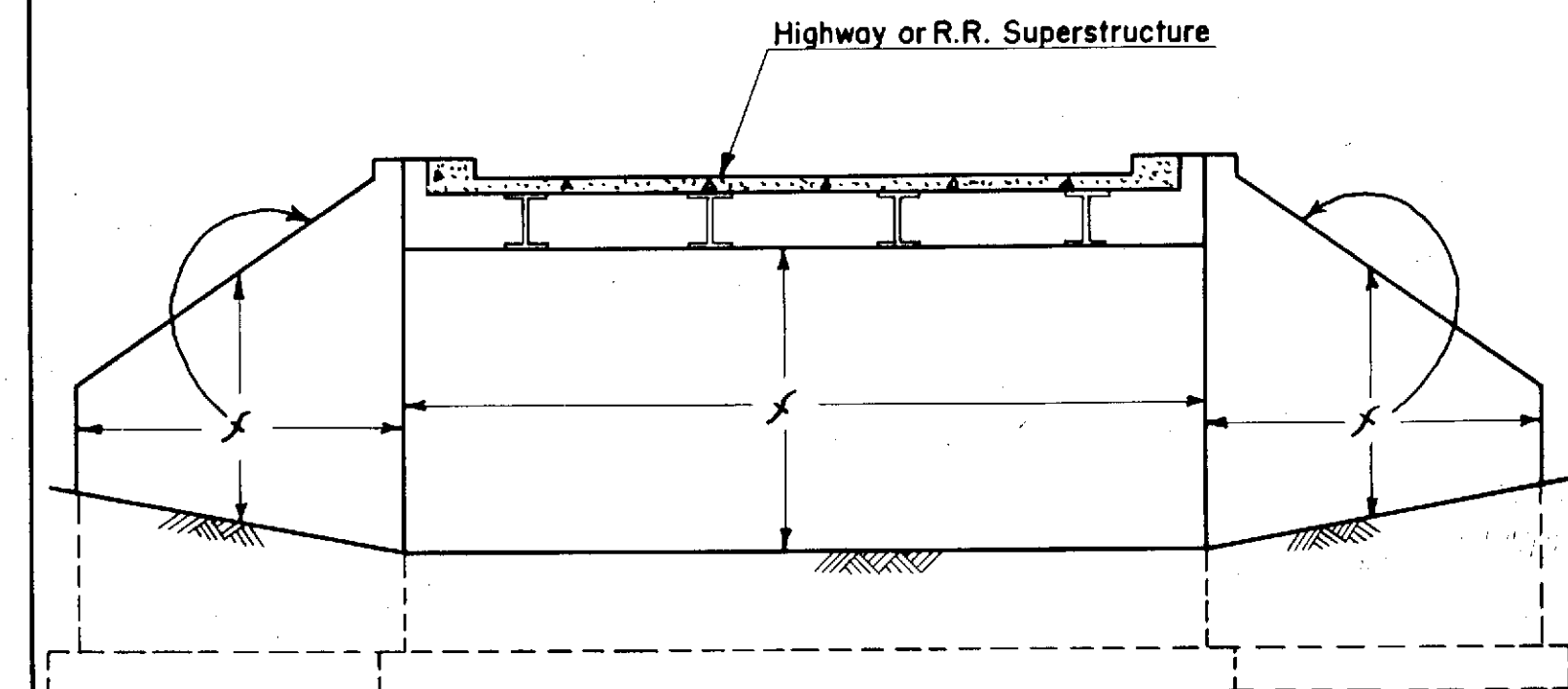
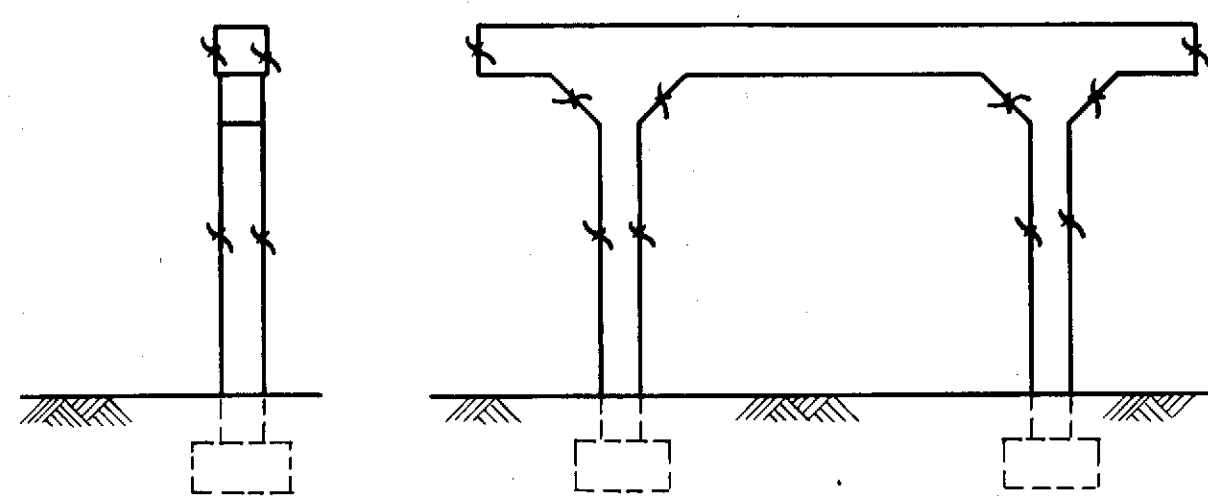
PIER AND SUPERSTRUCTURE

RURAL STREAM CROSSING

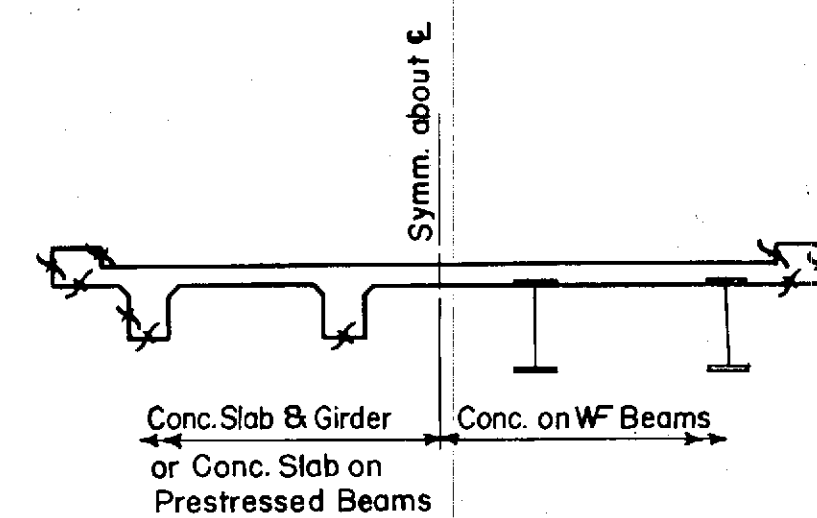


PIER AND SUPERSTRUCTURE

STREAM CROSSING IN OR NEAR URBAN AREA

STUB ABUTMENTS
(Underpass Only)CANTILEVER ABUTMENTS
(Underpass Only)Piers
2, 3 & 4

All Piers



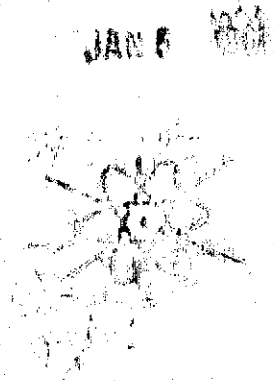
Superstructure

In case of round columns the whole column shall receive Class "I" finish on all Piers.

UNDERPASS

STRUCTURE NO. I-25-0

COLORADO DEPARTMENT OF HIGHWAYS			
DETAILS SHOWING PORTIONS OF STRUCTURE TO RECEIVE CLASS "2" SURFACE FINISH.			
Across <u>Big Spring Creek</u>			
Sta. <u>524+61 to 525+28.92</u>			
Near <u>Kit Carson</u> Sec. <u>20/21 T. 19/s R. 98/w</u>			
Designed by A.D.N.	Approved by <u>R.A.A.-J.B.</u>		
Made by <u>R.A.A.-J.B.</u>	Bridge Engineer		
Checked by	Date: <u>Nov. 27, 1965</u>		

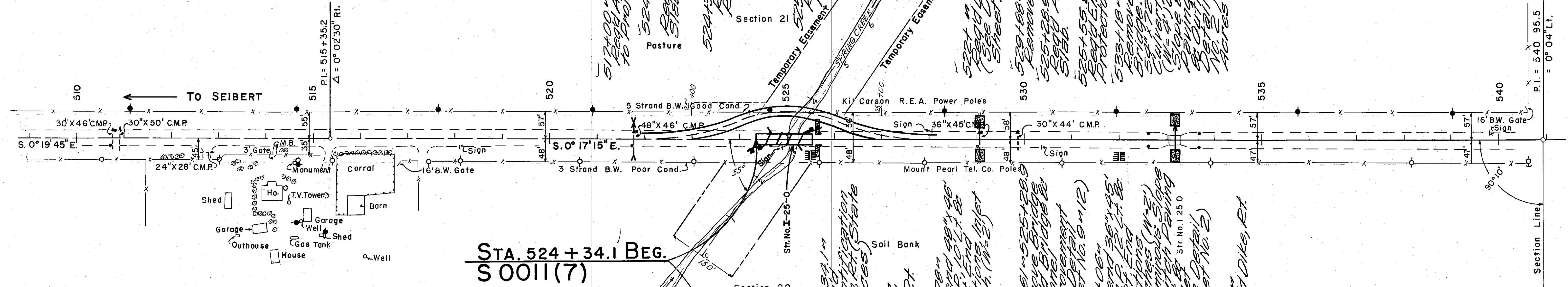
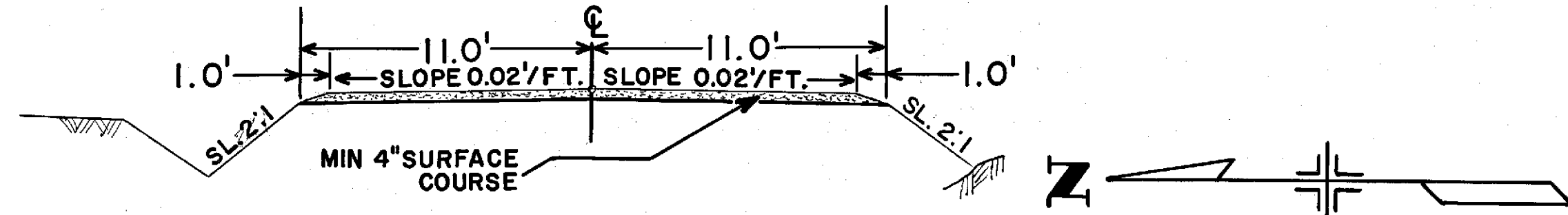


PLAN	DATE
NO. 26576	

PLAN	DATE
NO. 26576	

CONTINUED

TYPICAL SECTION FOR DETOUR ONLY



STA. 511+10
B.M. Elev. 4,403.28'
Nail in Power Pole, Lt.

STA. 517+80
B.M. Elev. 4,399.50'
Nail in Power Pole, Lt.

STA. 524+60
B.M. Elev. 4,397.47'
Nail in Power Pole, Lt.

STA. 531+90
B.M. Elev. 4,397.18'
Nail in Power Pole, Lt.

STA. 539+05
B.M. Elev. 4,397.58'
Nail in Power Pole, Lt.

NOTE:

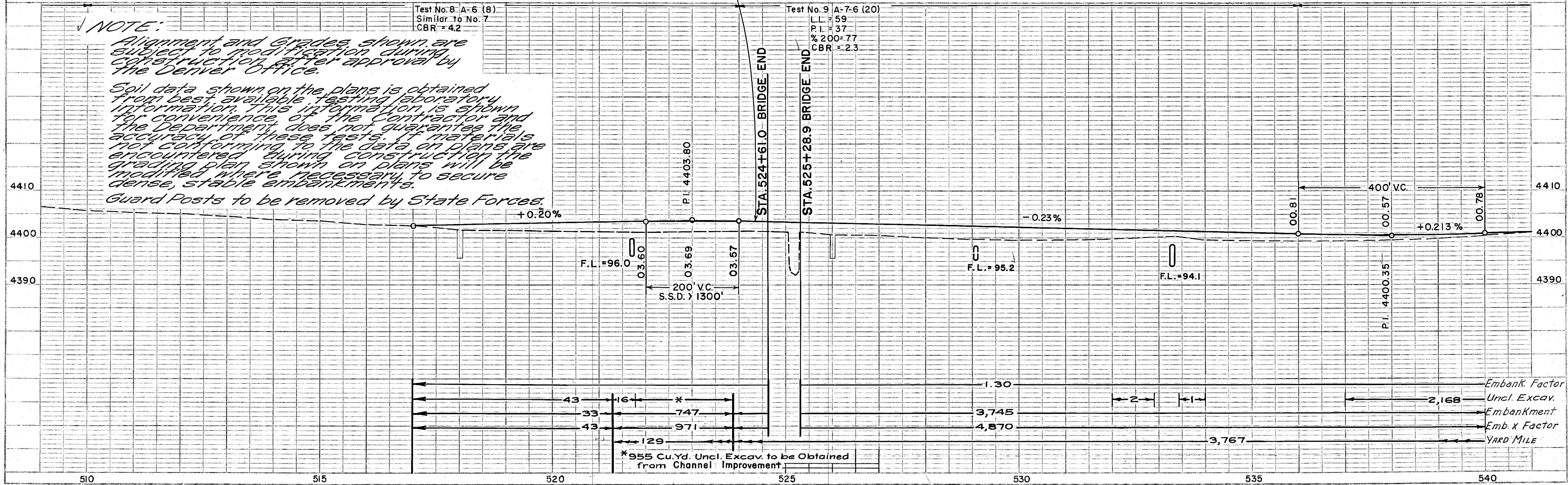
Alignment and Grades shown are subject to modification during construction after approval by the Denver Office.

Soil data shown on the plans is obtained from best available testing laboratory information. This information is shown for convenience of the Contractor and the Department does not guarantee the accuracy of these tests. If materials not conforming to the data on plans are encountered during construction the grading plan shown on plans will be modified where necessary to secure dense, stable embankments.

Guard Posts to be removed by State Forces.

Test No. 8 A-6 (8)
Similar to No. 7
CBR = 4.2

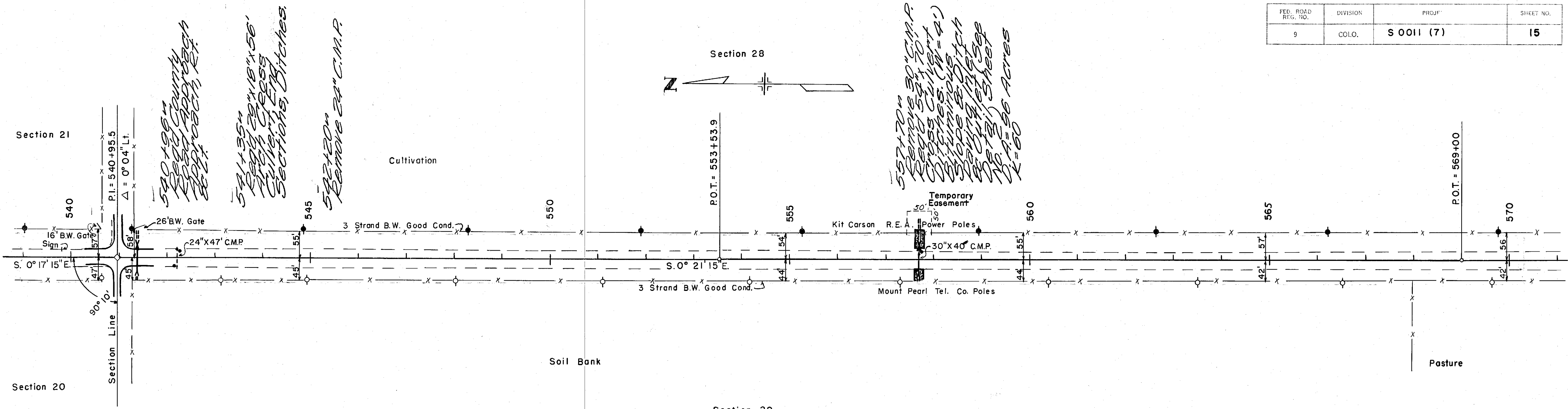
Test No. 9 A-7-6 (20)
LL = 59
PI = 37
% 200 = 77
CBR = 2.3



PLAN
SURVEYED
NOTE BOOK PLotted
NO. 11 OF DAY CHECKED
26576

DESIGNED
CHECKED
NOTE BOOK PLotted
NO. 11 OF DAY CHECKED
T.N. STRATTON/NS CH KD

FED. ROAD REG. NO.	DIVISION	PROJ.	SHEET NO.
9	COLO.	S 0011 (7)	15

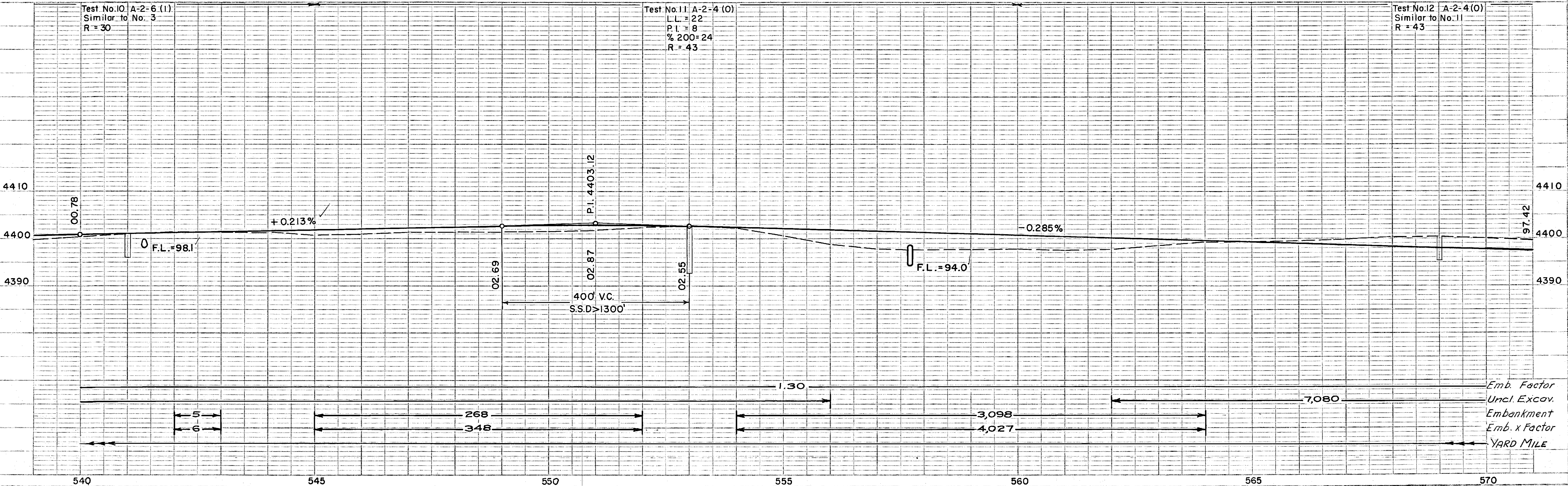


STA. 544+85
B.M. Elev. 4,399.89'
Nail in Power Pole, Lt.

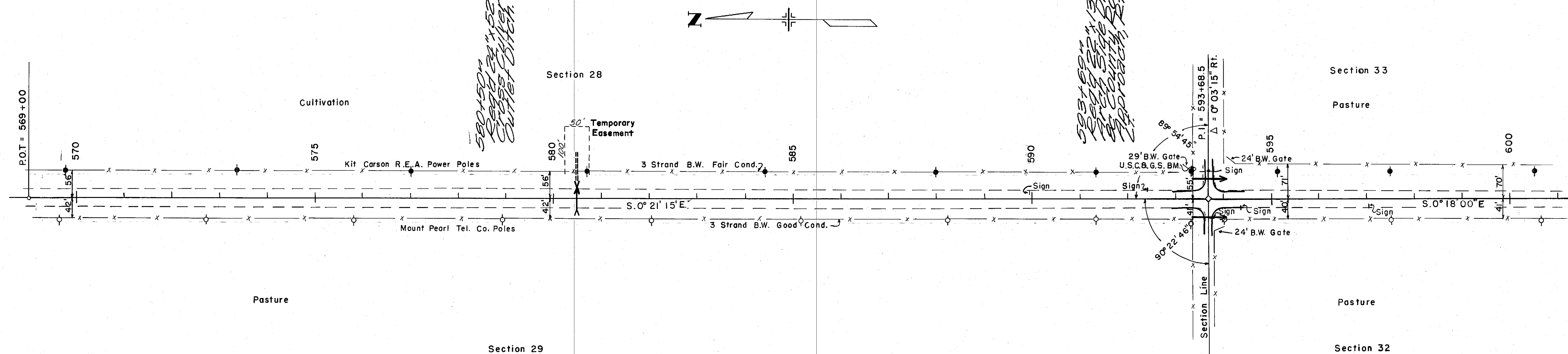
STA. 552+00
B.M. Elev. 4,401.62'
Nail in Power Pole, Lt.

STA. 559+00
B.M. Elev. 4,396.38'
Nail in Power Pole, Lt.

STA. 566+20
B.M. Elev. 4,397.45'
Nail in Power Pole, Lt.



FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLO.	S 0011 (7)	16



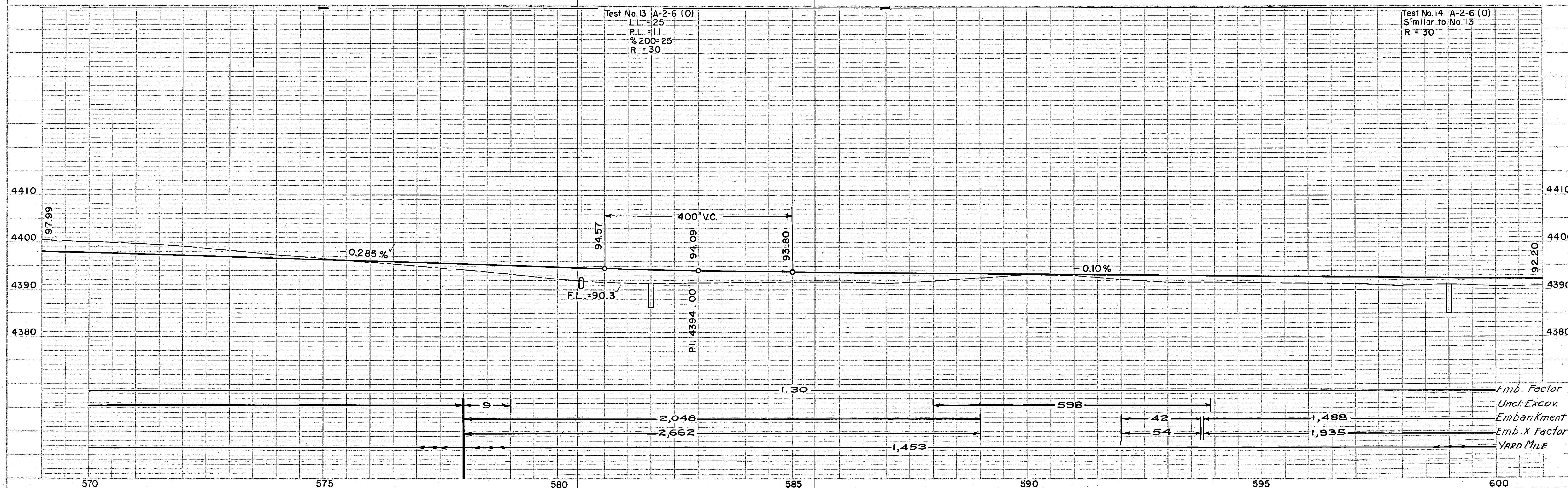
STA. 573+30
B.M. Elev. 4,398.38'
Nail in Power Pole, Lt.

STA. 580 + 90
B.M. Elev. 4,391.12'
Nail in Power Pole, Lt.

STA. 587+90
B.M. Elev. 4,391.01'
Nail in Power Pole, Lt.

STA. 595+10
B.M. Elev. 4,390.45'
Nail in Power Pole, Lt.

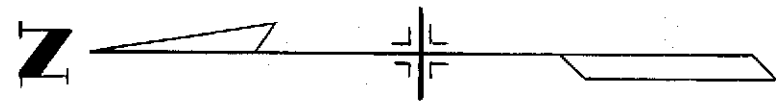
STA. 600+50
B.M. Elev. 4,388.68'
Nail in Power Pole, Lt.



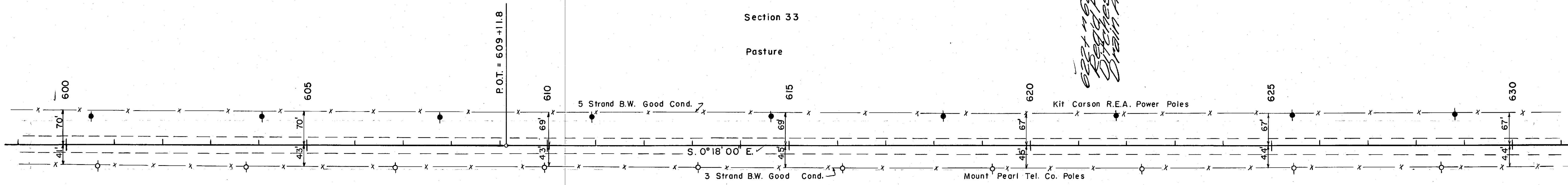
FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLO.	S 0011 (7)	17

PLAN
SURVEYED
NOTE BOOK
NO. 25576

DATE
SY
NOTE BOOK
NO. 25576



622+46.29+
Keyed Fill
Reaches to
Drain Ahead.

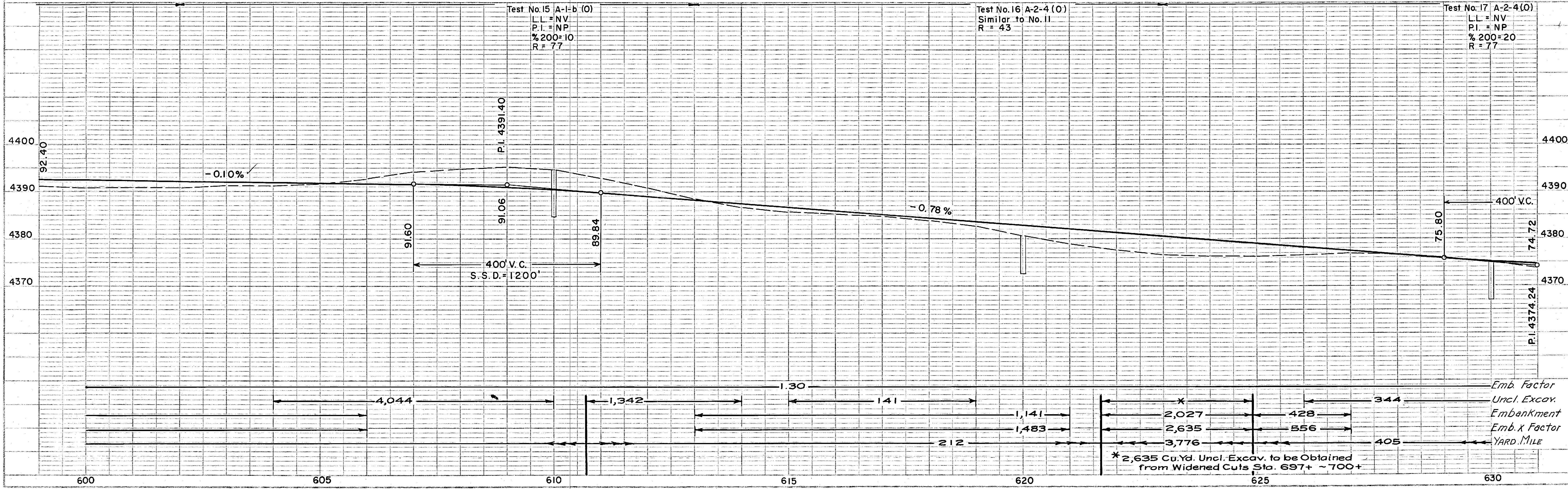


STA. 600+50
B.M. Elev. 4,388.68'
Nail in Power Pole, Lt.

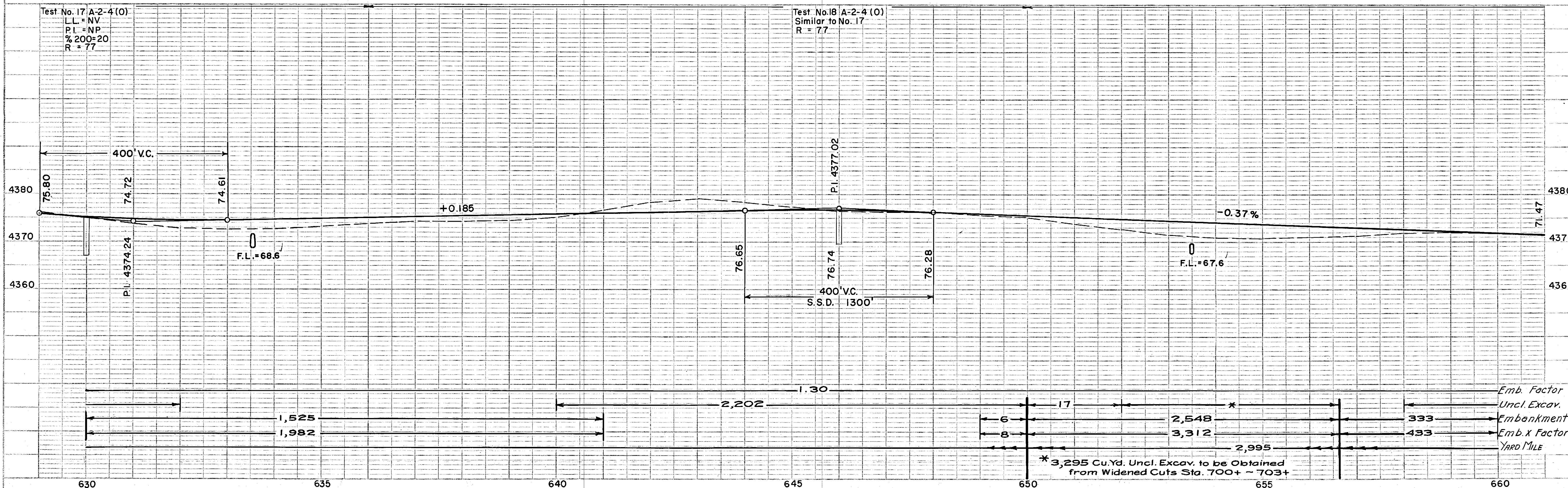
STA. 607+80
B.M. Elev. 4,395.29'
Nail in Power Pole, Lt.

T. 13 S., R. 48 W.
STA. 614+50
B.M. Elev. 4,385.73'
Nail in Power Pole, Lt.

STA. 625+48
B.M. Elev. 4,374.72'
Nail in Power Pole, Lt.

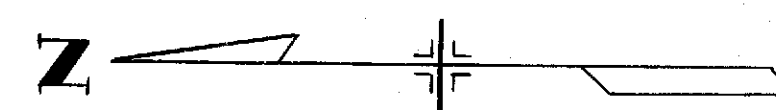


PLAN	SUPERVISOR	BY	DATE
NOTE BOOK	PLANTER		
NO. 26576	ALIGNMENT CHECKED		
	BY		
	DATE		



FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLO.	S 0011 (7)	19

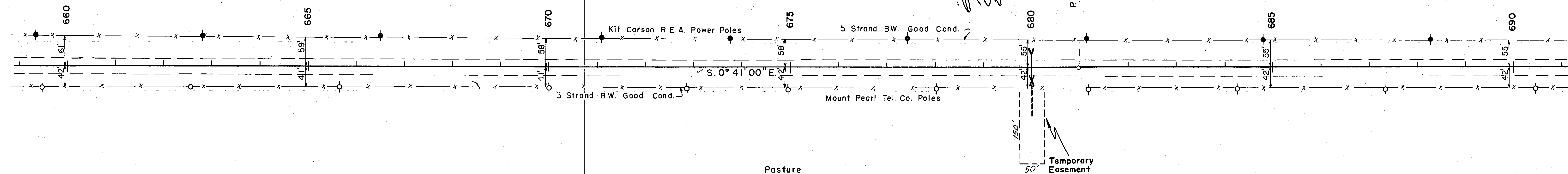
PLAN	REV.	DATE
26576		



Section 4

Pasture

660+00 to 680+00
Cross Cut Ditch
at Outlet Ditch



Pasture

Section 5

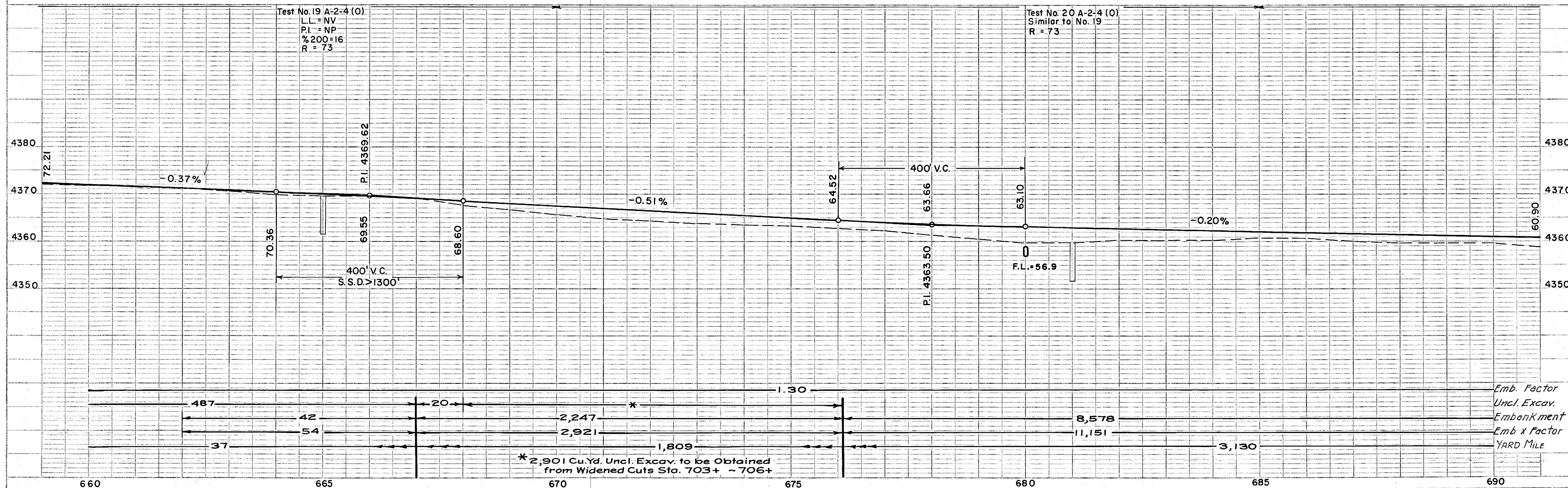
T. 14 S., R. 48 W.

STA. 666+50
B.M. Elev. 4,366.74'
Nail in Power Pole, Lt.

STA. 673+80
B.M. Elev. 4,361.21'
Nail in Power Pole, Lt.

STA. 681+15
B.M. Elev. 4,358.19'
Nail in Power Pole, Lt.

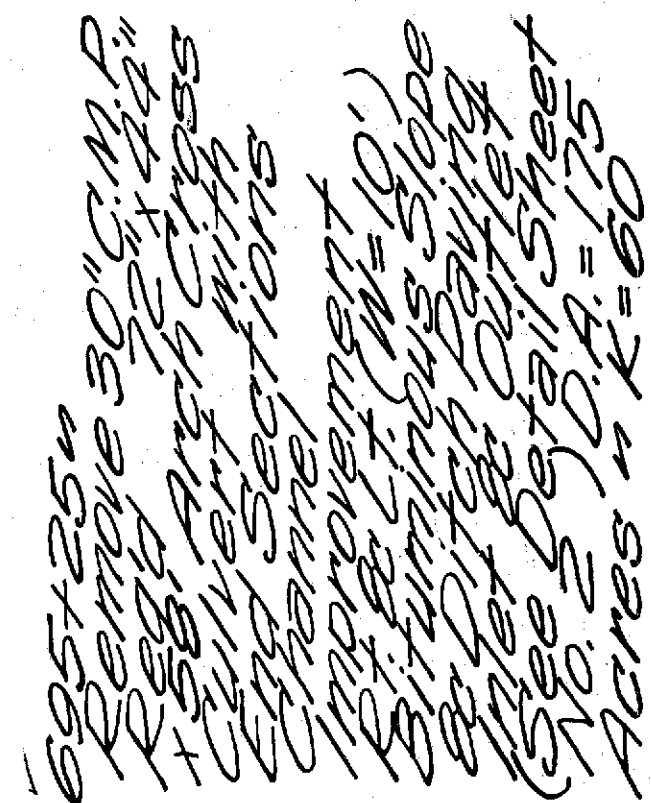
STA. 488+30
B.M. Elev. 4,360.00'
Nail in Power Pole, Lt.



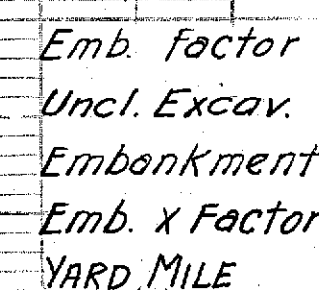
* 2,901 Cu. Yd. Uncl. Excav. to be Obtained
from Widened Cuts Sta. 703+ ~ 706+

Emb. Factor
Uncl. Excav.
Embankment
Emb x Factor
YARD MILE

PLAN	DATE
NO. 26576	BY
NOT BOOK	DATE
ALIGNMENT CHECKED	DATE
NO. 26576	DATE



T. 14 S., R. 48 W.



* 206 Cu.Yd. Uncl. Excav. to be Obtained
from Widened Cuts Sta. 706+ ~ 707+

WILCOFF

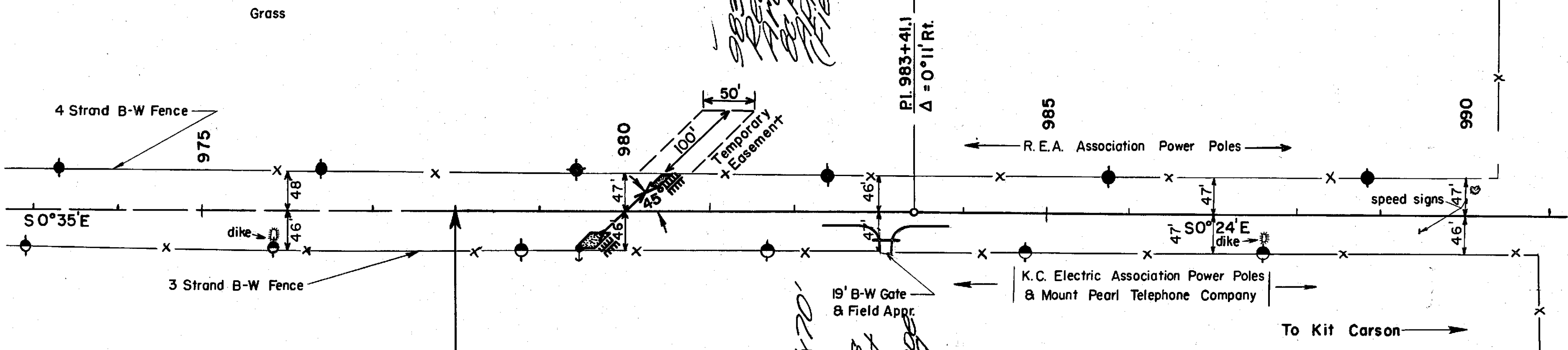
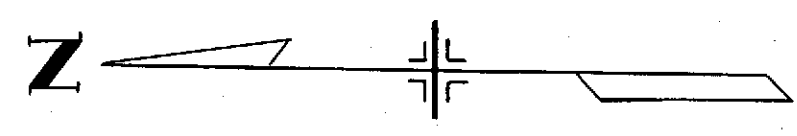
PLAN
REVISED
NOTED
NO. 25853

DATE
BY
NO. T.N.
STRUCTURE, NOT IN CHARGE

REPROFILING

Section 4

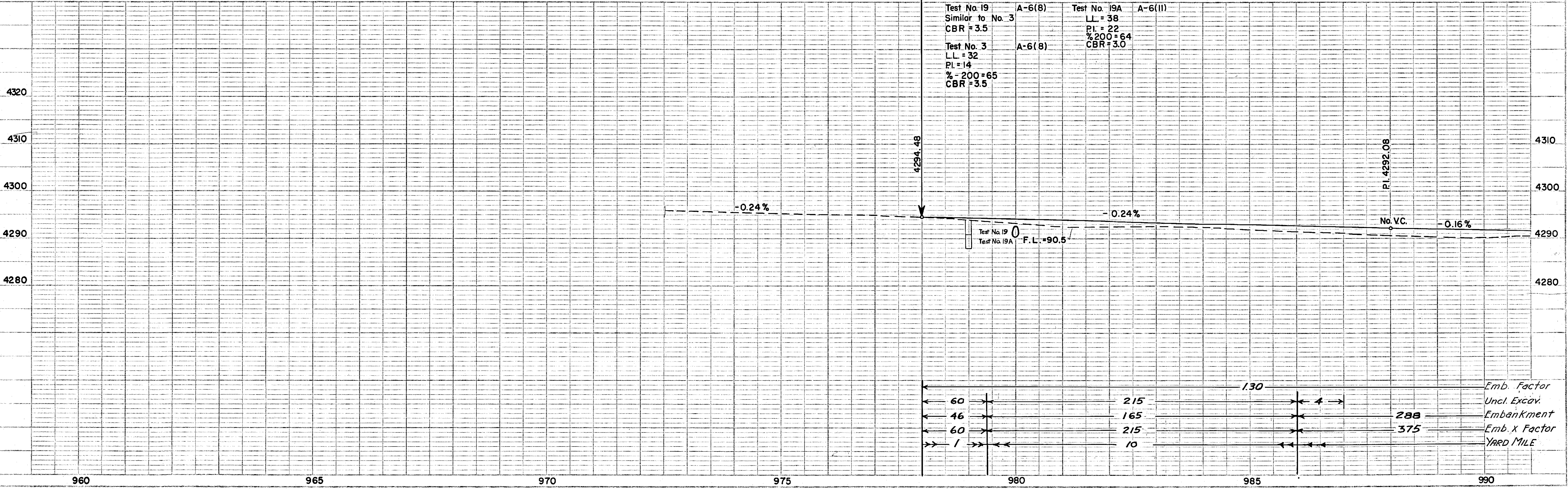
FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLO.	S0011(7)	21



978+00 END
NO WORK SECTION=
END S 0011(4)

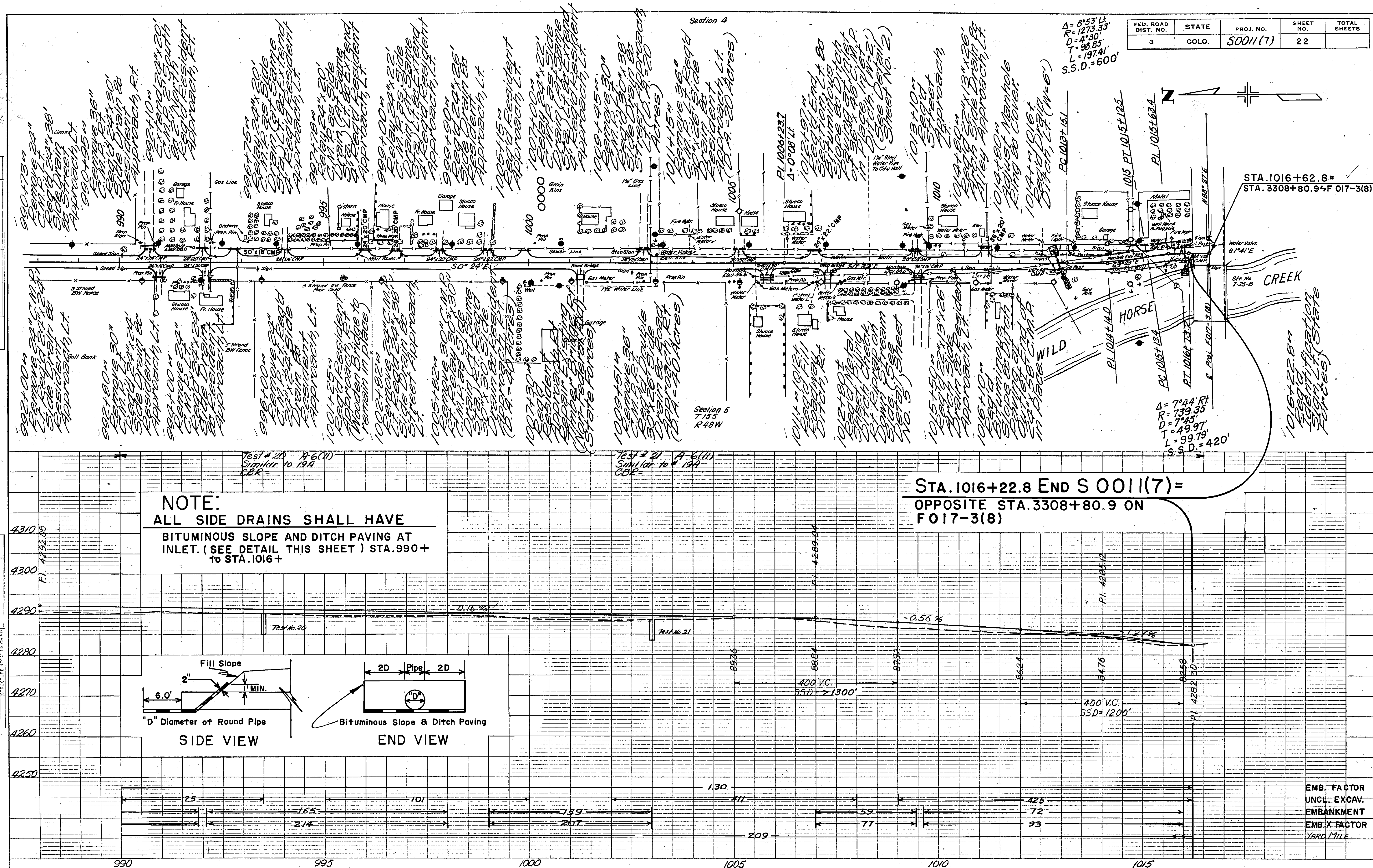
Section 5
R 48 W, T 15 S

Test No. 19 Similar to No. 3 CBR = 3.5	A-6(8)	Test No. 19A LL = 38 PI = 22 % 200 = 64 CBR = 3.0	A-6(11)
Test No. 3 LL = 32 PI = 14 % 200 = 65 CBR = 3.5	A-6(8)		



PLAN	SURVEY	DATE
NO. 2585	BY D. TULLY	9/1/68
NOTE: ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.		

PROFILE	DATE
NO. 2585	9/1/68
NOTE: FOR GRADES CHECKED BY T.N. IN FIELD, GRADES NOT IN CHARGE.	



FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	50011(7)	22	

$\Delta = 8^\circ 53' 14''$
 $R = 1273.33'$
 $D = 4^\circ 30'$
 $T = 38.85'$
 $L = 197.41'$
 $S.S.D. = 600'$

FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	50011(7)	22	

$\Delta = 7^\circ 44' 41''$
 $R = 739.35'$
 $D = 7^\circ 45'$
 $T = 49.97'$
 $L = 99.79'$
 $S.S.D. = 420'$