

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	195-B	1	

(Revised 2-16-37, C.E.F.)

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" 5c	" " 1862+, " " " 5
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COLORADO STATE HIGHWAY DEPARTMENT

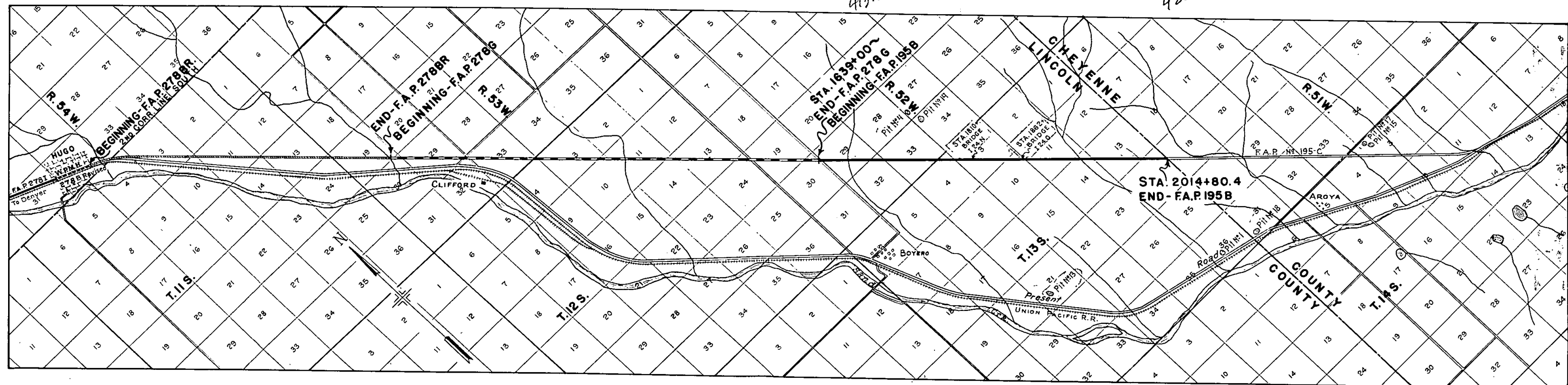
PLAN AND PROFILE OF PROPOSED FEDERAL AID PROJECT NO. 195B STATE HIGHWAY NO. 8 LINCOLN COUNTY

CONVENTIONAL SIGNS

CENTERLINE OF IMPROVEMENT	1620
COUNTY LINE	-----
SECTION LINES	-----
QUARTER SECTION LINES	-----
RAILROADS	-----
SECONDARY ROADS	-----

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 - 37,580.4' = 7.117 MI.
NET LENGTH OF PROJECT - 37,580.4' = 7.117 MI.



NOTE:

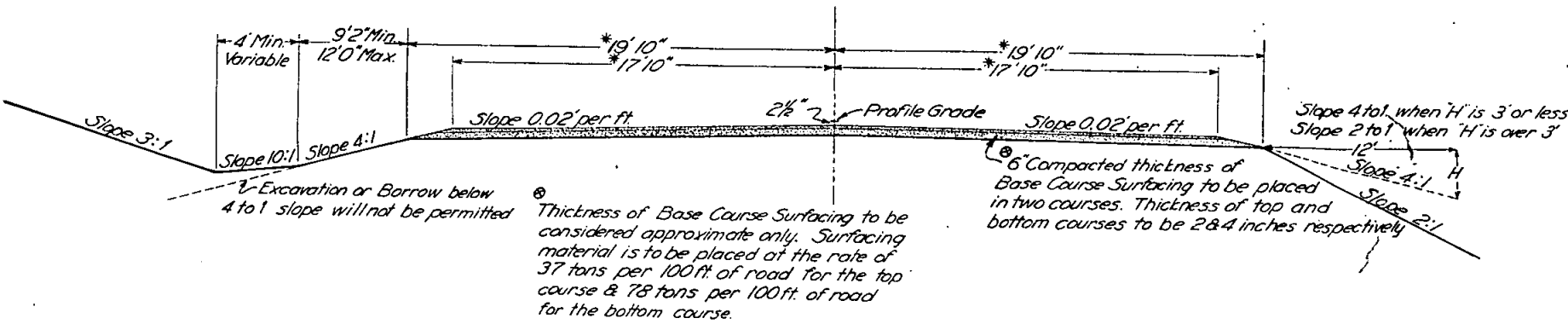
It is recommended that Bidders on this project go over the plan details with one of the field representatives of this department.
Ernest Montgomery, Div. Engr., Colo. Sprgs.
V. H. Littlefield, Res. Engr., Colorado Springs.

RECOMMENDED FOR APPROVAL
10/5/36
Assistant Engineer
APPROVED
Chief of Division
STATE HIGHWAY ENGINEER
RECOMMENDED FOR APPROVAL
DIST. ENG. BUREAU PUBLIC ROADS
RECOMMENDED FOR APPROVAL
CHIEF ENG. BUREAU PUBLIC ROADS
APPROVED
DIRECTOR BUREAU PUBLIC ROADS

Revised 2/16/37 S.F.C.
Revised 3/22/37 R.M.A.

TYPICAL CROSS SECTION OF IMPROVEMENT AND SUMMARY OF QUANTITIES

TYPICAL SECTION



* Roadway embankments at bridge approaches shall be so constructed that the finish point of the gravel shoulder is 3 ft. outside the curb line of the bridge. Where widening of the section is necessary to achieve this result, it shall take place uniformly over a distance of 300 ft. This is to accommodate guard fences at bridge approaches.

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 the 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 the side ditches as shown on the typical section, either noted as "Borrow" on the plans or as "Embankment" in the list of structures, are to be classified and paid for as "Unclassified Excavation". These quantities are to be stated as part of the original excavation at locations indicated on the plans. Any slope stakes beyond the typical ditches are subject to change by the Engineer to fit embankment requirements actually encountered during construction.

All curves are to be superelevated in accordance with the methods shown on the Standard Superelevation Sheet.

The entire project is to be cleared for the full width of the right-of-way and the cost thereof is to be included in the lump sum price for Clearing and Grubbing the Entire Project.

The detour for the project lies along the present road as indicated on the title sheet.

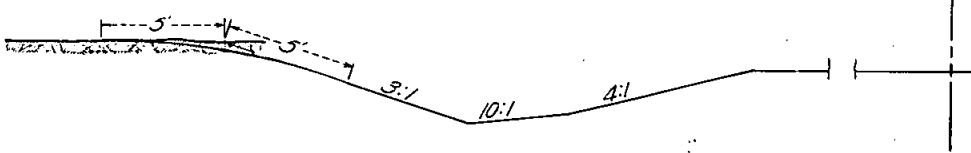
The contractor shall maintain in safe condition and at his own expense, all temporary approaches and crossings of intersecting highways.

All C.M.P. Culverts are to be constructed without headwalls unless otherwise called for on the plans. Where but one headwall is called for it is to be placed at the inlet end unless otherwise called for on the plans.

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

All road approaches to the project are to be surfaced with a 4 inch thickness of "Gravel or Crushed Rock Surfacing" extending approximately 30 ft. from the edge of the highway. The estimated quantity of this surfacing material is shown in the List of Structures.

CUT SLOPE TREATMENT IN EARTH CUTS



The intersection of cut slopes with the existing ground shall be rounded in earth cuts, beginning 5 ft. outside the slope stake and extending 5 ft. down the cut slope. Where the cut slope is less than 5 ft., each of the above widths is to be reduced to the actual slope distance.

Quantities involved in cut slope treatment shall not be included in Unclassified Excavation.

SUMMARY OF APPROXIMATE QUANTITIES

NO.	ITEM	UNIT	ROADWAY	BRIDGES		TOTALS
				1810+	1862+	
10a.	Clearing and Grubbing Entire Project	Lump Sum	1300			1300
12a.	Removing Fence	Lin. Ft.	150,500			150,500
13c.	Unclassified Excavation	Cu. Yd.	8.5			8.5
13d.	Cut Slope Treatment	Mile	130	10	10	150
14a.	Dry Rock Excavation (Str.)	Cu. Yd.	400	700	470	1,570
14b.	Dry Common Excavation (Str.)	Cu. Yd.	50	150	121	321
14c.	Wet Rock Excavation (Str.)	Cu. Yd.	150	1,020	1,750	2,920
14d.	Wet Common Excavation (Str.)	Cu. Yd.	412,000			412,000
18a.	Station Yard Overhaul	Sta. Yd.	6,600			6,600
18b.	Yard Mile Overhaul	Yd. Mi.	43,200			43,200
26a.	Gravel or Crushed Rock Surfacing	Ton				
42a.	Untreated Bridge Timber	M. Ft. bn		06	05	11
46a.	Class A Concrete	Cu. Yd.	310	718	716	1,744
46r.	Class A Concrete (Handrail)	Cu. Yd.		19	18	37
47.	Reinforcing Steel	Pound	20,300	92,700	93,585	206,585
48.	Structural Steel	Pound		162,000	138,500	300,500
53b.	18 Corrugated Metal Culvert Pipe	Lin. Ft.	300			300
53c.	24 Corrugated Metal Culvert Pipe	Lin. Ft.	360			360
53d.	30 Corrugated Metal Culvert Pipe	Lin. Ft.	278			278
53f.	42 Corrugated Metal Culvert Pipe	Lin. Ft.	66			66
74.	Wire Cable Guard Fence	Lin. Ft.	504			504
76c.	Barbed Wire Fence with Metal Posts	Lin. Ft.	72,200			72,200
76g.	Barbed Wire Gates	Each	22			22
80c.	Sheet Copper	Pound		105	508	613
81a.	Project Markers	Each	1			1
81b.	Right of Way Markers	Each	38			38
82.	Cattle Guards - 16 ft. Roadway	Each	6			6
89a.	Drain Pipe (Concrete Floor)	Each		12	12	24

TABULATION OF STRUCTURES

LOCATION OF STRUCTURE	DESCRIPTION	REMOVE STRUCT'R		EXCAV.		STRUCT. EXCAV.	CONC.		REIN. STL.	CORR. MET. PIPE					SURF. TONS	MISCELLANEOUS	
		NO.	KIND	CU. YD.			CU. YD.	CL. "A" CL. "B"		LIN. FT.							
				UNCL.	EMB.			CU. YD.		18"	24"	30"	36"	42"			
1666 + 88	6'x7'x42' Concrete Box Culvert, Ditches			30		150		77.3		5063							
1685 + 00	C.M.P. Culvert, Ditches			5		30						70					
1697 + 11	Approaches Lt. and Rt.				100										40		
1697 + 40	C.M.P. Culvert, Ditches (45° Skew, Lt.)			10		25						84					
1713 + 50	Approaches Lt. and Rt.				100										40		
1731 + 00	C.M.P. Culvert, Ditches			5		15						64					
1746 + 50	C.M.P. Side Drains & Approaches Lt. & Rt.				100						130				20		
1750 + 00	C.M.P. Culvert					10							68				
1764 + 00	6'x7'x42' Concrete Box Culvert, Ditch			20		75	77.3		5063								
1771 + 00	Approaches Rt. & Lt.				10										40		
1799 + 75	C.M.P. Culvert, Ditches			10		20									66		
1801 + 00	Approaches Lt. & Rt.				75										20		
1810 + 20 - 1812 + 23.4	Bridge -	(QUANTITIES IN SUMMARY)															
1810 ±	Channel Change:- Material to be used in Dikes & Banks Material to be used in Rdwy. Emb't.																
1822 + 00	C.M.P. Culvert, Ditches			5		5						60					
1830 + 00	Approaches Lt. and Rt., Sd. Drains Rt. & Lt.				5										20		
1845 + 71	C.M.P. Side Drains & Approaches Lt. & Rt.				200										40		
1849 + 10	C.M.P. Culvert, Ditches			25		20						80					
1862 + 50 - 1864 + 38.8	Bridge -	(QUANTITIES IN SUMMARY)															
1862 ±	Channel Change:- Material to be used in Dikes & Banks Material to be used in Rdwy. Emb't.																
1885 + 00	C.M.P. Culvert, Ditches			5		30						70					
1910 + 00	Approaches Lt. and Rt.				25										20		
1938 + 00	6'x7'x42' Concrete Box Culvert, Ditches			100		125	77.3		5063								
1939 + 59	Approaches Lt. and Rt.				600										40		
1957 + 00	6'x7'x42' Concrete Box Culvert, Ditches			15		90	77.3		5063								
1988 + 00	C.M.P. Culvert, Ditches			5		30						70					
1993 + 92	C.M.P. Sd. Drn. Rt. & Lt., Apprs. Lt. & Rt.				50	5					130				40		
2002 + 00	C.M.P. Culvert, Ditches			5		20						72					
2014 + 80	C.M.P. Side Drains & Approaches Lt. & Rt.				50										40		
2014 + 80.4	Project Marker																
1809 + 39.5 - 1810 + 02.5	Wire Cable Guard Fence, Lt. -																
1809 + 69.5 - 1810 + 32.5	Wire Cable Guard Fence, Rt. -																
1812 + 10.9 - 1812 + 73.9	Wire Cable Guard Fence, Lt. -																
1812 + 40.9 - 1813 + 03.9	Wire Cable Guard Fence, Rt. -																
1861 + 75.8 - 1862 + 38.8	Wire Cable Guard Fence, Lt.																
1861 + 93.2 - 1862 + 56.2	Wire Cable Guard Fence, Rt.																
1864 + 32.6 - 1864 + 95.6	Wire Cable Guard Fence, Lt.																
1864 + 50 - 1865 + 13	Wire Cable Guard Fence, Rt.																

① Structural Excavation is estimated to be 75% Common & 25% Rock, each of which is estimated to be 75% Dry & 25% Wet.

② Material is to be used to dike and bank channels.

③ Material is to be used in Roadway Emb't., quantities included for payment in profile quantities.

FENCING REQUIREMENTS

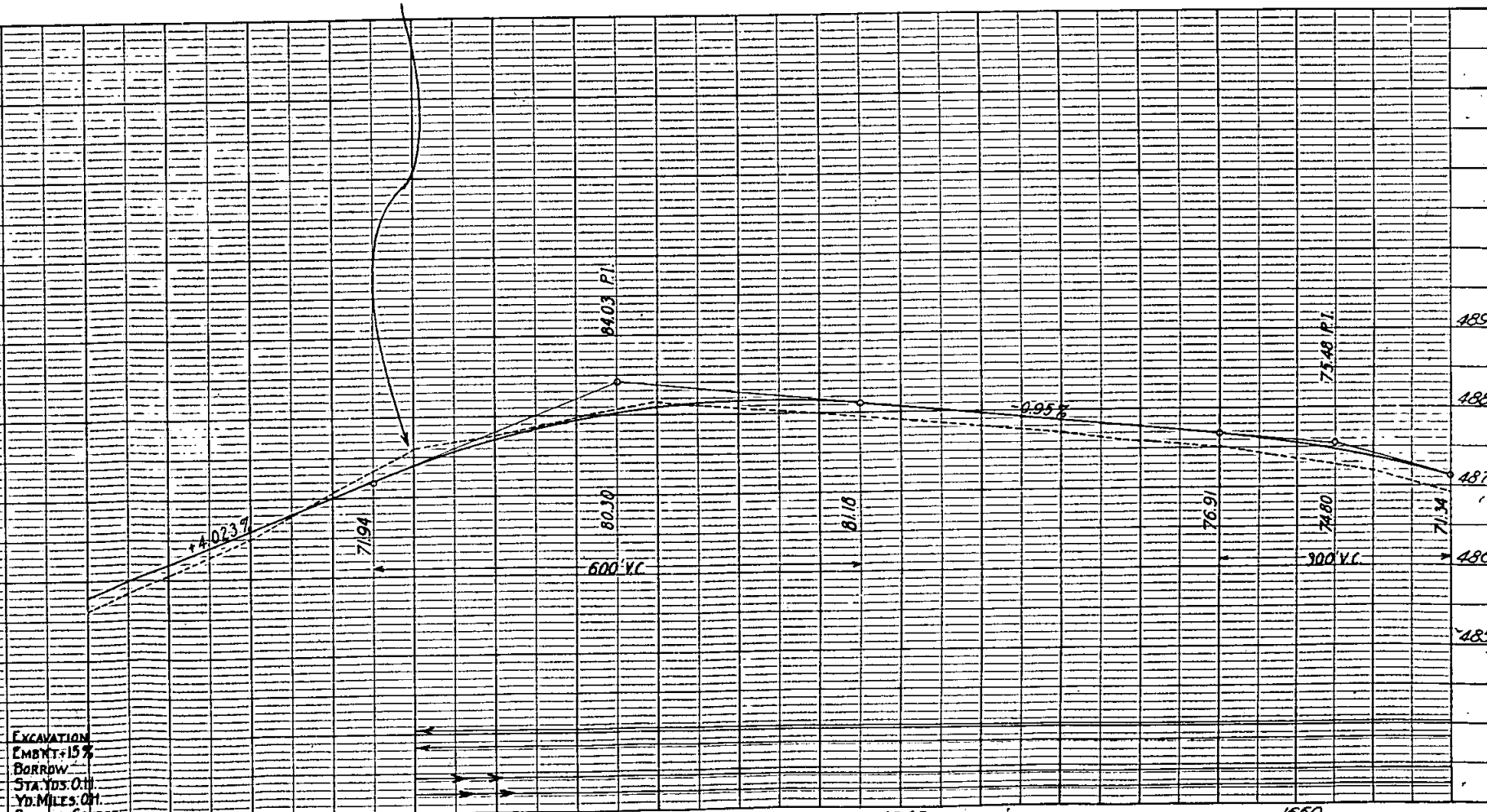
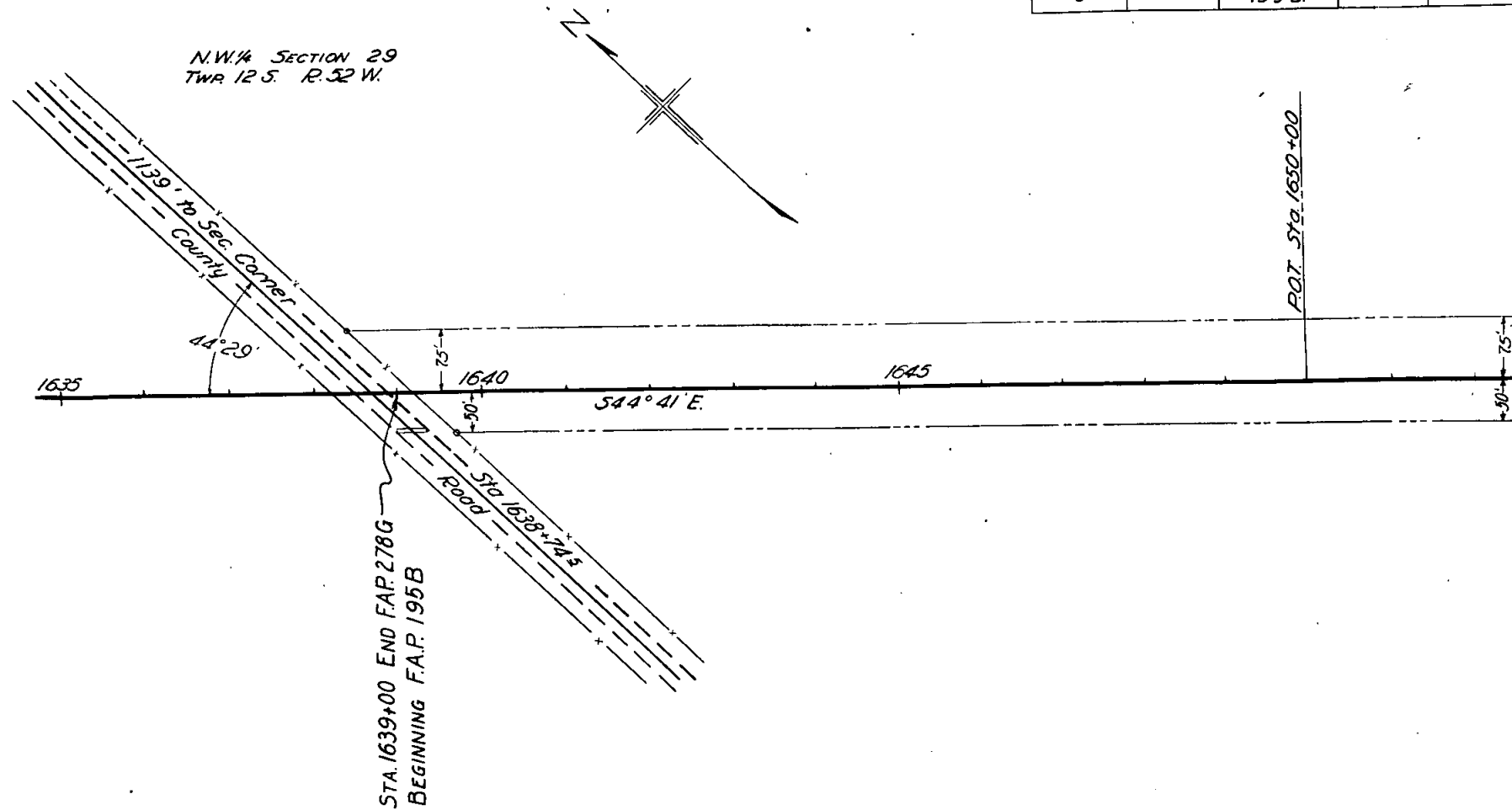
STATION	TO STATION	SIDE	REMOVE FENCE	BUILD B. WIRE FENCE	B. WIRE GATES		CATTLE GUARDS	
					LT.	RT.	LT.	RT.
1639+00	1697+40	L		5,840				
1639+22		X	150					
1639+22	1696+50	R		5,728				
1697+11					/	/	/	/
1697+40	1713+50	L		1,610				
1696+50	1714+50	R		1,800				
1713+95		X	150		/	/		
1713+50	2014+80	L		30,130				
1714+50	1752+60	R		810				
1746+50					/	/		
1752+60	1789+95	R		3,735				
1771+00		X	165		/	/		
1771+30		X	165					
1789+20		R		2,555				
1789+95	1815+00			19,980				
1815+00	2014+80	R			/	/		
1801+00					/	/		
1814+80		X	180					
1830+00		X	140		/	/	/	/
1830+30					/	/		
1845+71					/	/	/	/
1846+10		X	140					
1864+10		X	140		/	/		
1910+00					/	/		
1939+59					/	/		
1993+92					/	/		
2014+80					/	/		
TOTALS			1,230	72,188	22		6	

R.O.W. MARKERS

STATION	SIDE		NUMBER
	LT.	RT.	
1639+17	/	/	2
1676+50	/	/	2
1696+97	/	/	2
1697+30	/	/	2
1713+95	/	/	2
1751+75	/	2	3
1789+22	/	2	3
1814+80	/	/	2
1846+10	/	/	2
1864+10	/	/	2
1882+85	/	/	2
1919+65	/	/	2
1939+60	/	/	2
1956+80	/	2	3
1977+20	/	2	3
1993+92	/	/	2
2014+80	/	/	2
TOTAL			38

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	195B	12	

All pole lines encroaching on construction are to be moved by owners.
 Fencing, gates, R.O.W. Markers and cattle guards are tabulated on sheet No. 3.
 Alignment and grades shown on plans are subject to modification during construction.



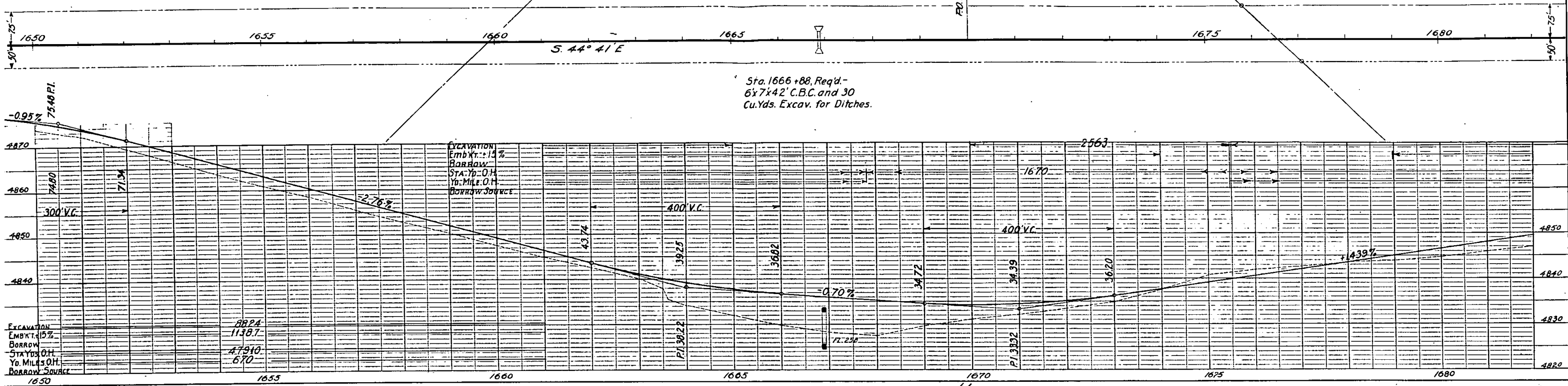
EXCAVATION
 EMBANKMENT 15%
 BORROW
 STA. 1639+00
 YD. MILES 0.11

N.W. 1/4 SECTION 29
Twp. 12 S. R. 52 W.

S.W. 1/4 SECTION 29
Twp. 12 S. R. 52 W.

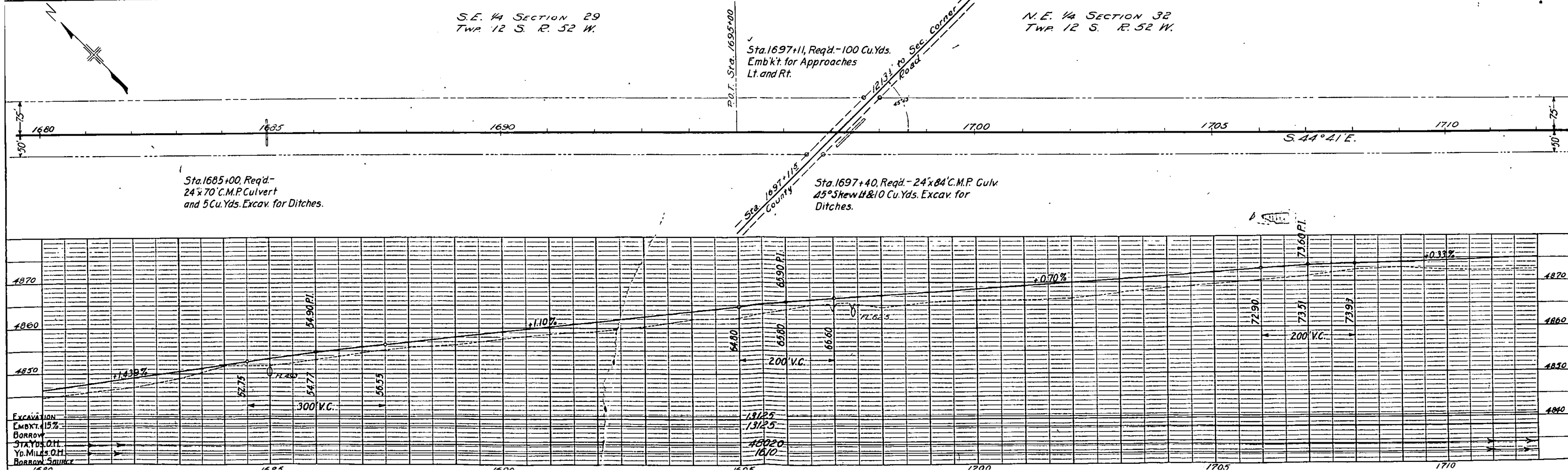
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	195B	13	

S.E. 1/4 SECTION 29
Twp. 12 S. R. 52 W.



S.E. 1/4 SECTION 29
Twp. 12 S. R. 52 W.

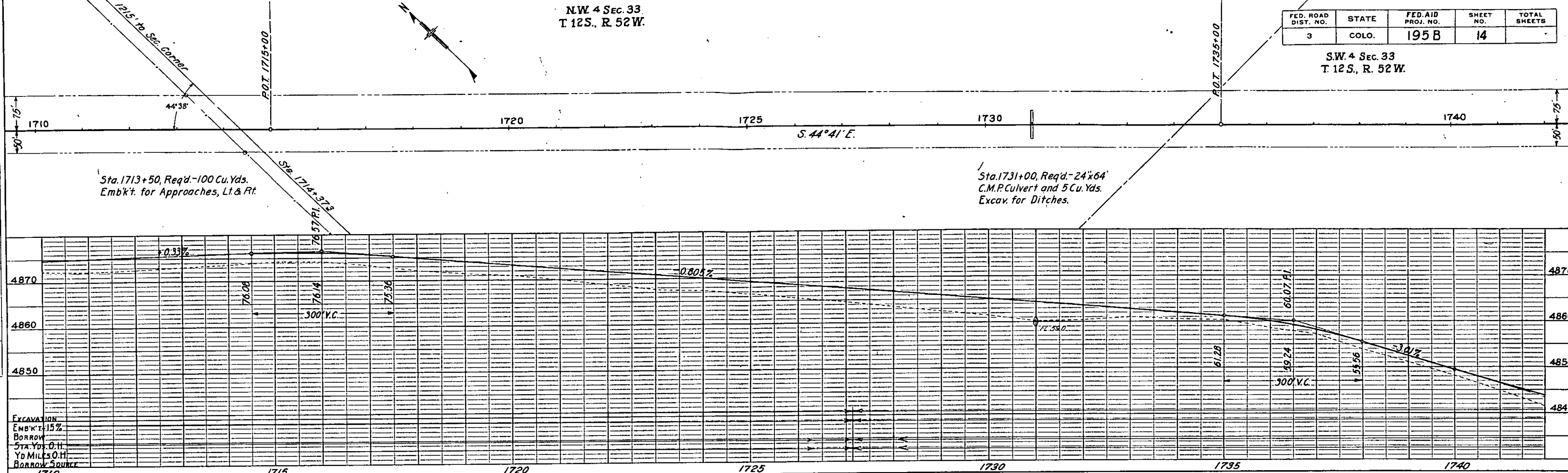
N.E. 1/4 SECTION 32
Twp. 12 S. R. 52 W.



N.W. 4 Sec. 33
T 12S., R. 52W.

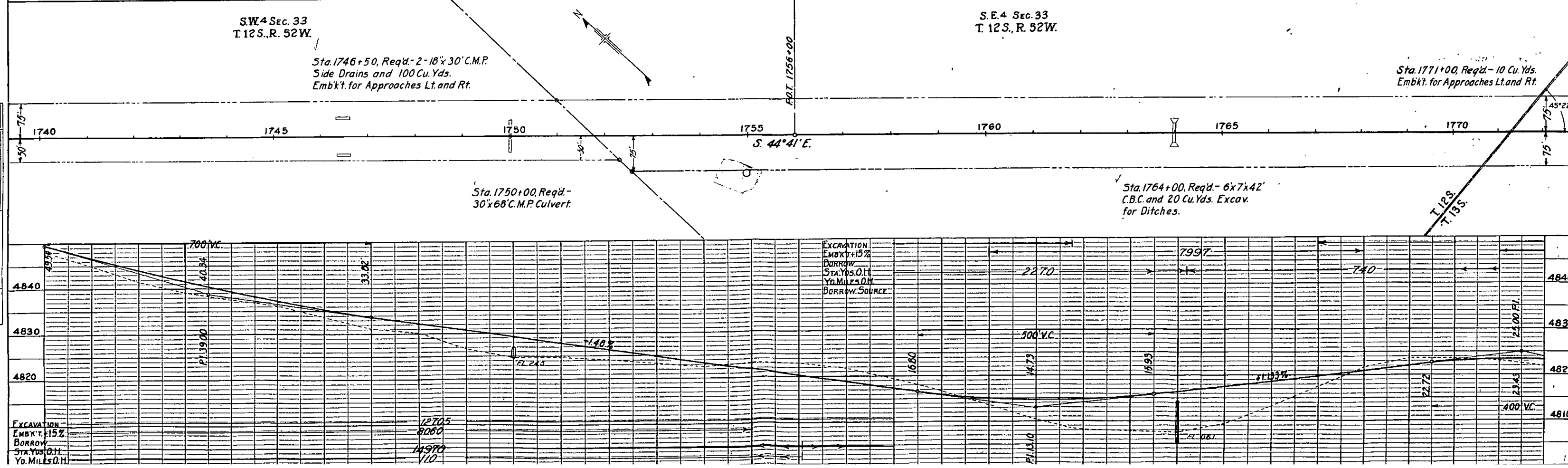
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3	COLO.	195 B	14	

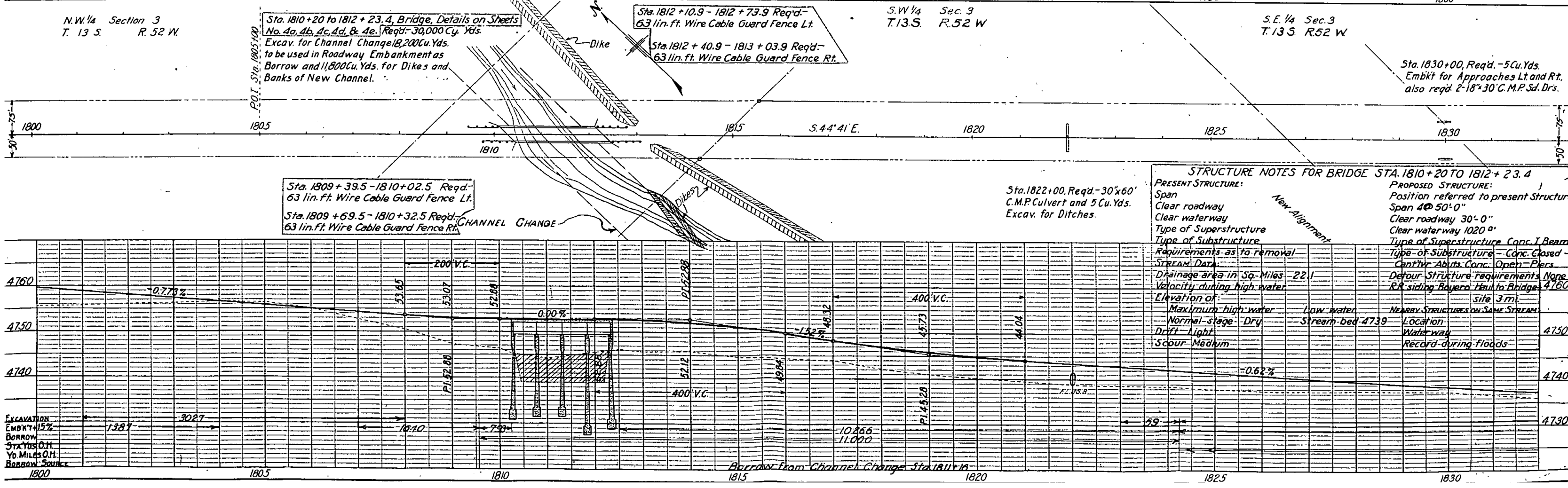
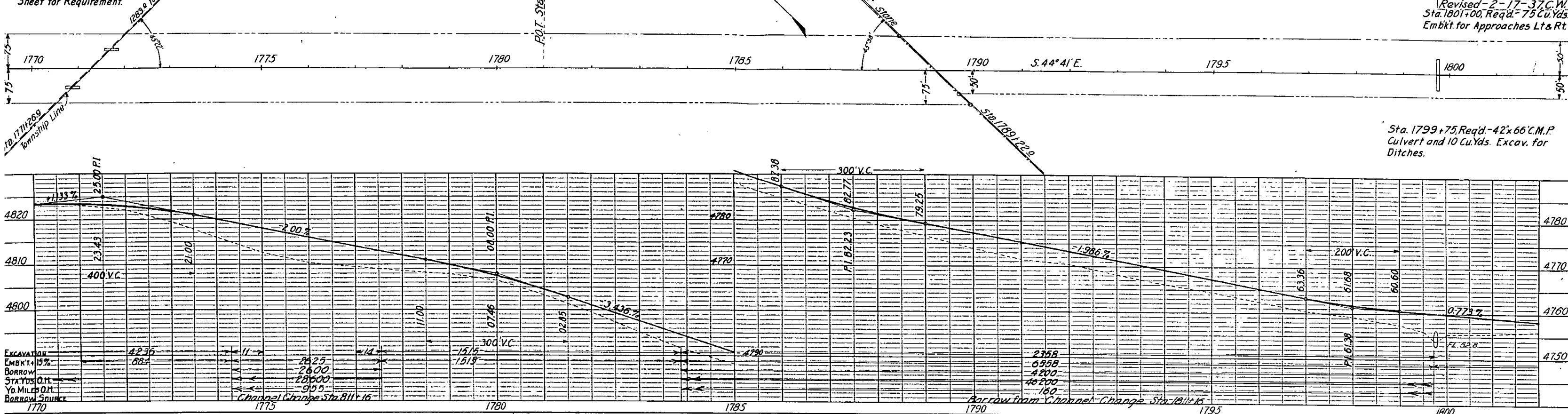
S.W. 4 Sec. 33
T 12S., R. 52W.



SW 4 Sec. 33
T 12S., R. 52W.

S.E. 4 Sec. 33
T 12S., R. 52W.





STRUCTURE NOTES FOR BRIDGE STA. 1810+20 TO 1812+23.4			
PRESENT STRUCTURE:		PROPOSED STRUCTURE:	
Span	40' 50" 0"	Span	40' 50" 0"
Clear roadway	30' 0"	Clear roadway	30' 0"
Clear waterway	102' 0"	Clear waterway	102' 0"
Type of Superstructure	Conc. I Beam	Type of Superstructure	Conc. I Beam
Type of Substructure	Conc. Closed - Cant'vr. Abutts. Conc. Open - Piers	Type of Substructure	Conc. Closed - Cant'vr. Abutts. Conc. Open - Piers
Requirements as to removal	None	Requirements as to removal	None
Stream Data:		Stream Data:	
Drainage area in Sq. Miles	22.1	Drainage area in Sq. Miles	22.1
Velocity during high water		Velocity during high water	
Elevation of:		Elevation of:	
Maximum high water		Maximum high water	
Normal stage	Dry	Normal stage	Dry
Drift - Light		Drift - Light	
Scour - Medium		Scour - Medium	
Location	Site 3 mi.	Location	Site 3 mi.
Waterway		Waterway	
Record during floods		Record during floods	

S.E. 1/4 SECTION 3
TWP. 13 S. R. 52 W.

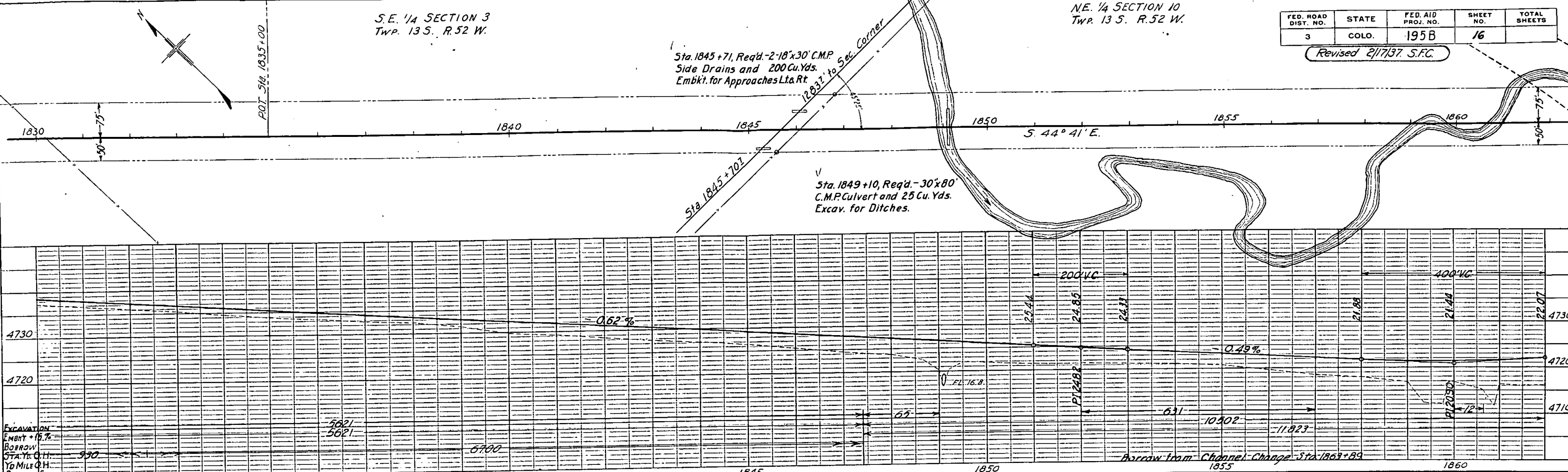
N.E. 1/4 SECTION 10
TWP. 13 S. R. 52 W.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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Revised 2/17/37. S.F.C.

Sta. 1845+71, Req'd. 2-18'x30' C.M.P.
Side Drains and 200 Cu. Yds.
Embk't. for Approaches Lta Rt.

Sta. 1849+10, Req'd. 30'x80'
C.M.P. Culvert and 25 Cu. Yds.
Excav. for Ditches.



EXCAVATION
EMBKT. 15%
BORROW
STA. TO CH.
TO MILE O.H.
BORROW SOURCE

1304.3 to Sec. Corner
1860 1865
1862+50 to 1864+38.8, Req'd.
Bridge as per details on Sheets 5a, 5b,
5c, 5d & 5e; Req'd. 20,000 Cu. Yds.
Excav. for Channel Change 16,370 Cu. Yds.
to be used in Roadway Embankment
as Borrow and 3,630 Cu. Yds. for Dikes
and Banks of New Channel.

STRUCTURE NOTES FOR BRIDGE AT STA. 1862+50 TO 1864+38.823

PRESENT STRUCTURE:
Span -
Clear roadway -
Clear waterway -
Type of Superstructure -
Type of Substructure -
Removal requirements -
New Alignment

PROPOSED STRUCTURE:
Position referred to present structure -
Span - 4 @ 45'-4"
Clear roadway - 30'-0"
Clear waterway - 950'
Type of Superstructure - Concrete I Beam
Type of Substr. - Closed Cantilvr. Abuts. Conc. Open Piers.

N.W. 1/4 SEC. 11
T. 13 S. R. 52 W.

S.W. 1/4 SECTION 11
TWP. 13 S. R. 52 W.

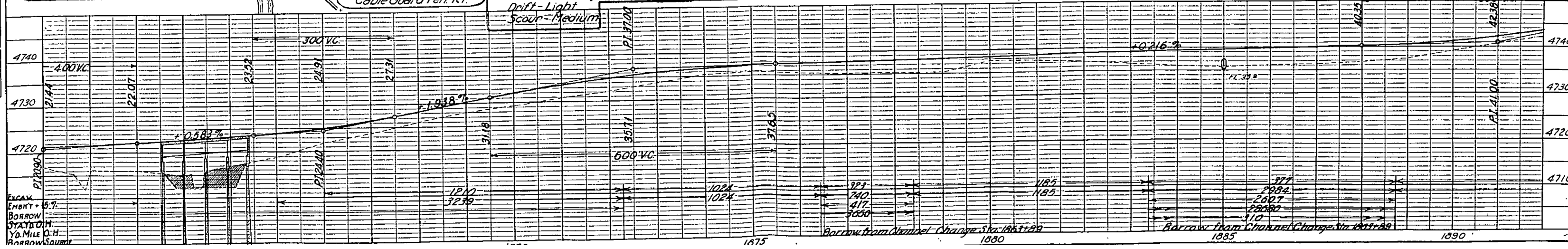
Sta. 1861+75.8-1862+38.8, Req'd.
63 lin. ft. Wire Cable Guard Fen. Lt.
Sta. 1861+93.2-1862+56.2, Req'd.
63 lin. ft. Wire Cable Guard Fen. Rt.

Sta. 1864+326-1864+95.6,
Req'd. 63 lin. ft. Wire Cable
Guard Fence, Lt.
Sta. 1864+50-1865+13,
Req'd. 63 lin. ft. Wire
Cable Guard Fen. Rt.

STREAM DATA:
Drainage area in Sq. Mi. - 19.2^{sq} mi
Velocity during high water -
Elevation of:
Max. high water - Low water -
Normal stage - Dry Stream bed - 47120 Record during floods -
Drift - Light
Scour - Medium

Detour Structure requirements - None
R.R. Siding - Boyero Haul to bridge site - 3.5 mi
NEARBY STRUCTURES ON SAME STREAM
Location -
Waterway -

Sta. 1885+00, Req'd. 30'x70' C.M.P.
Culvert and 5 Cu. Yds. Excav. for
Ditches.



EXCAV.
EMBKT. 5%
BORROW
STA. TO CH.
TO MILE O.H.
BORROW SOURCE

Borrow from Channel Change Sta. 1861+89

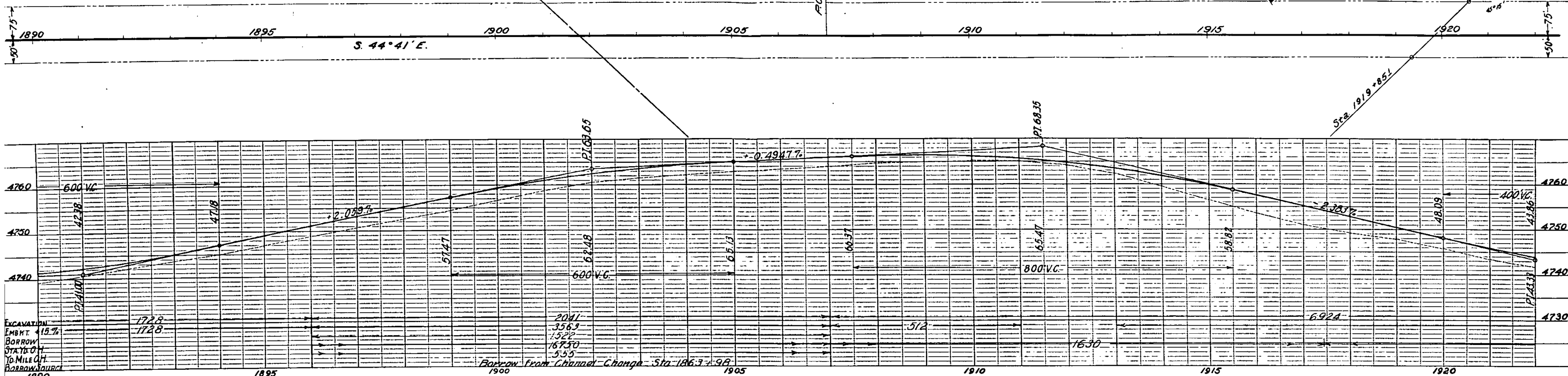
Borrow from Channel Change Sta. 1861+89

S.W. 1/4 SECTION 11
TWP. 13 S. R. 52 W.

S.E. 1/4 SECTION 11
TWP. 13 S. R. 52 W.

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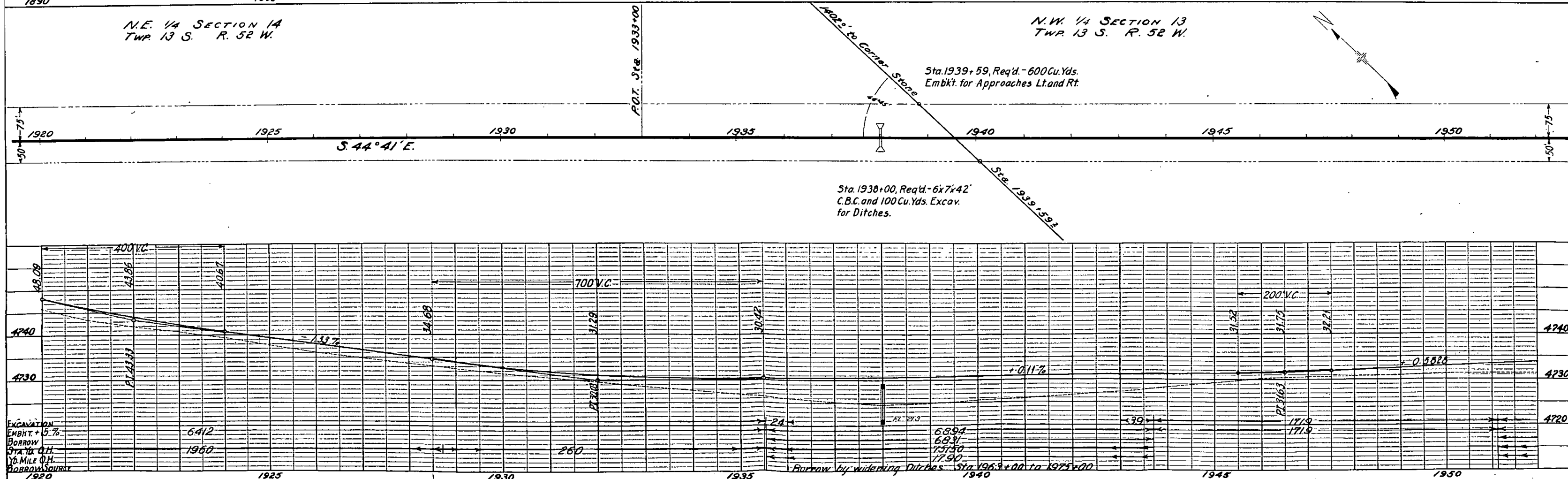
Sta. 1910+00, Req'd. - 25 Cu. Yds.
Embk't. for Approaches Lt. and Rt.



N.E. 1/4 SECTION 14
TWP. 13 S. R. 52 W.

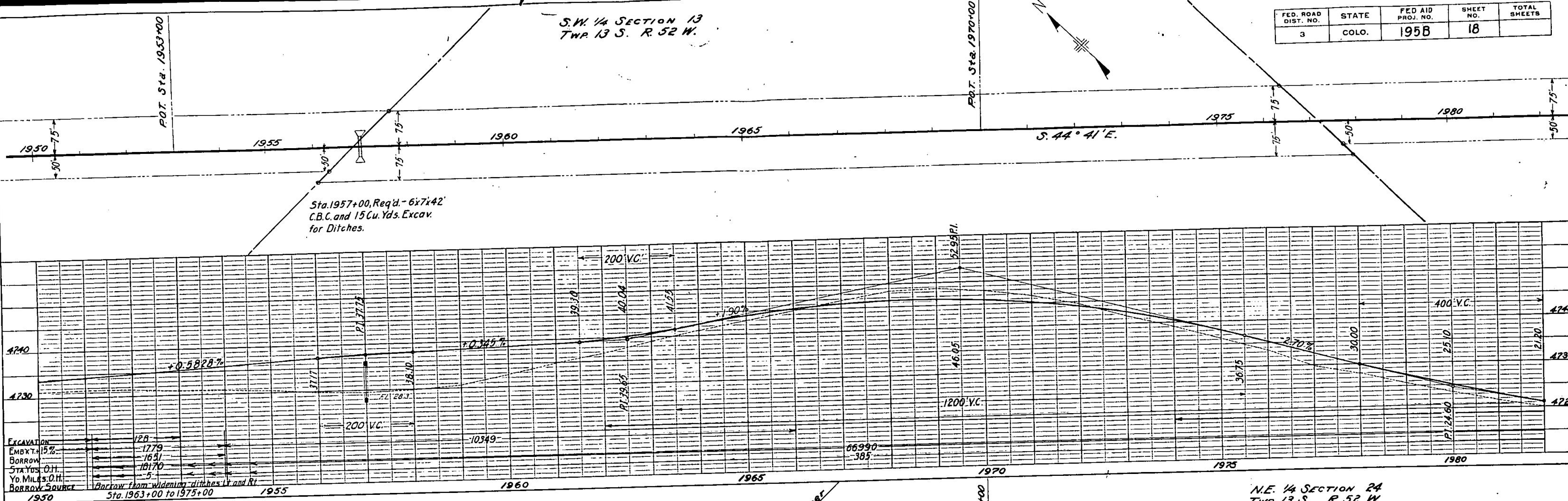
N.W. 1/4 SECTION 13
TWP. 13 S. R. 52 W.

Sta. 1939+59, Req'd. - 600 Cu. Yds.
Embk't. for Approaches Lt. and Rt.



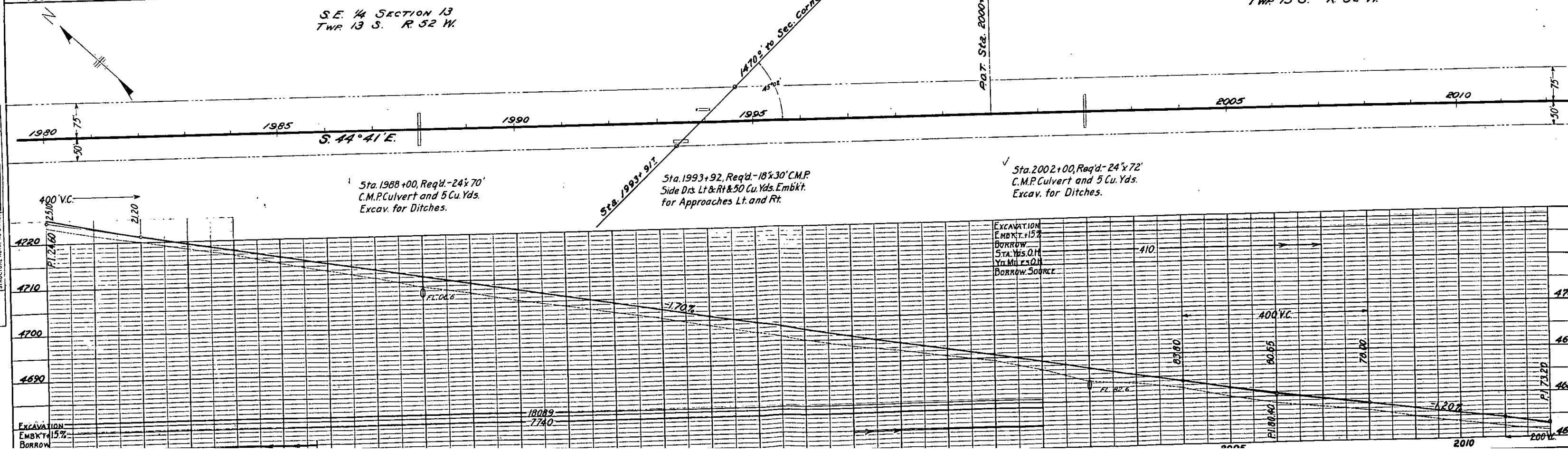
FED. ROAD DIST. NO.	STATE	FED AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	195B	18	

S.W. 1/4 SECTION 13
TWP 13 S. R 52 W.



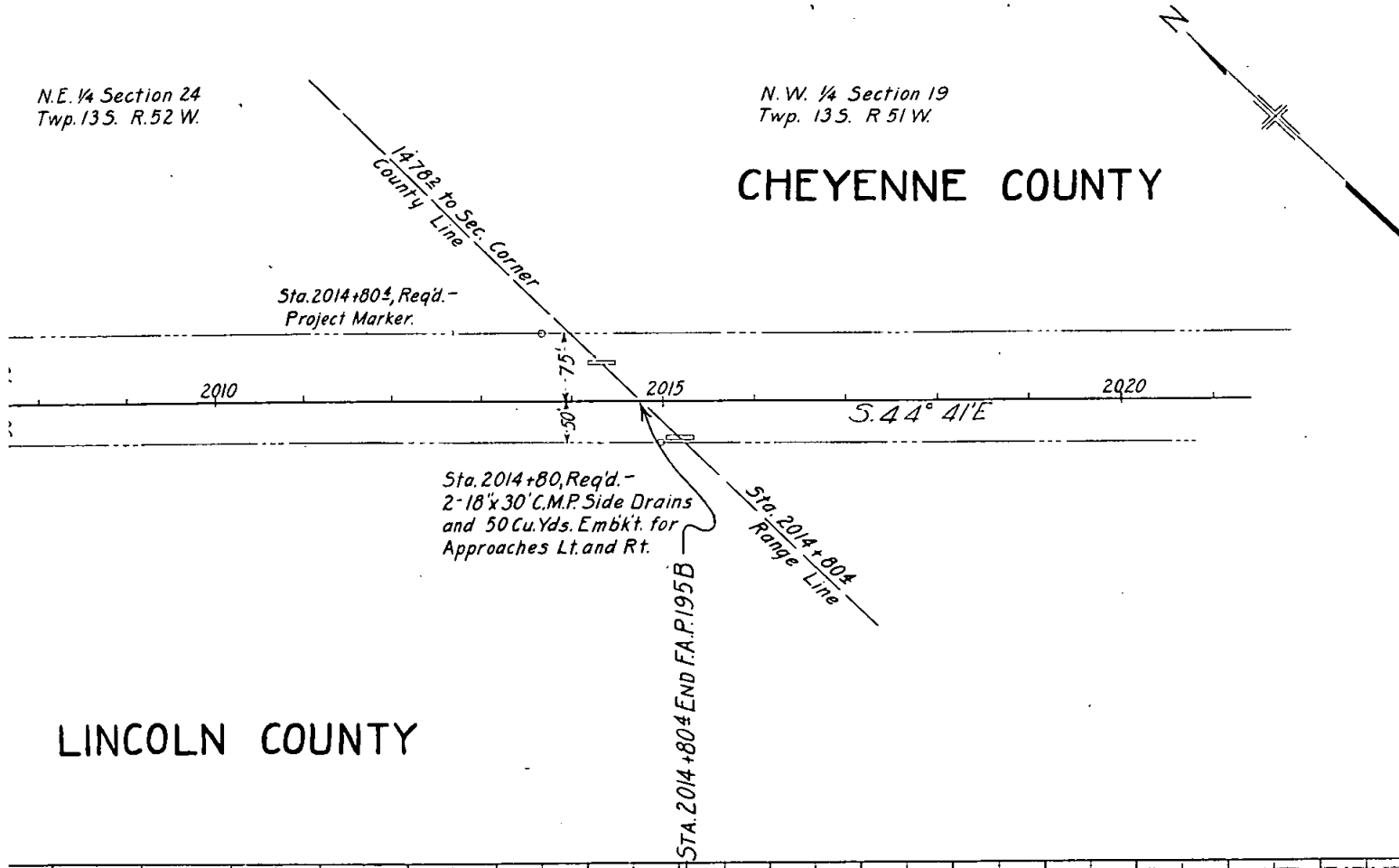
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N.E. 1/4 SECTION 24
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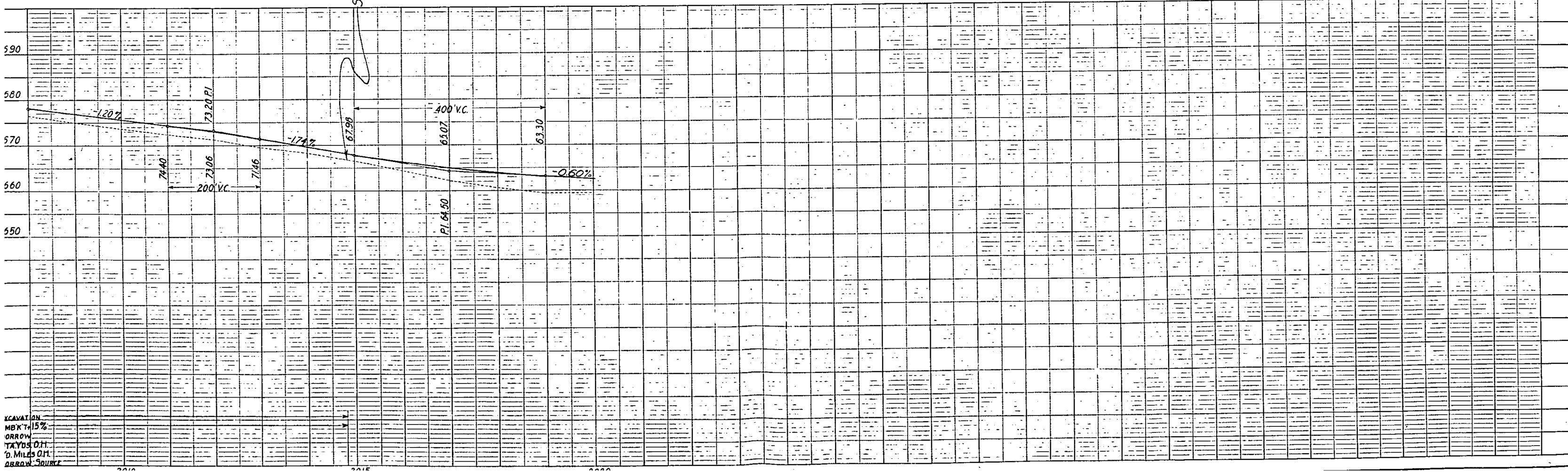


N.W. 1/4 Section 19
Twp. 13S. R 51W.

CHEYENNE COUNTY



LINCOLN COUNTY



XCAVATION _____
 MBK'T + 15% _____
 BORROW _____
 TAYDS O.H. _____
 D. MILES O.H. _____
 BORROW SOURCE _____