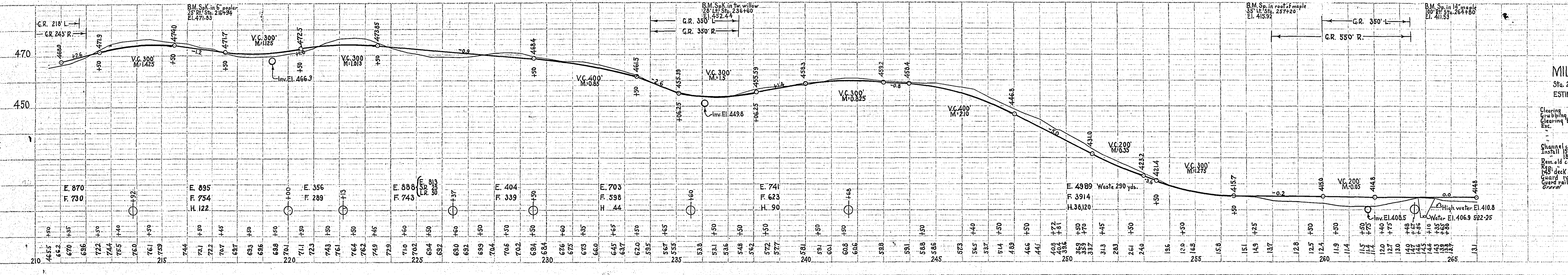
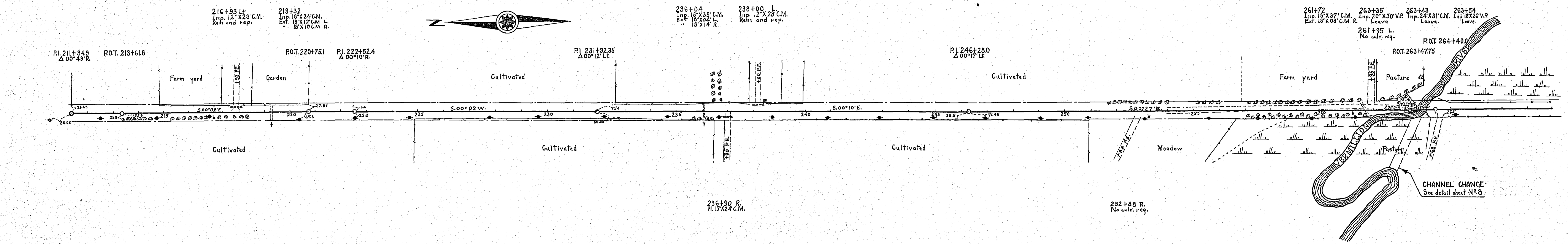


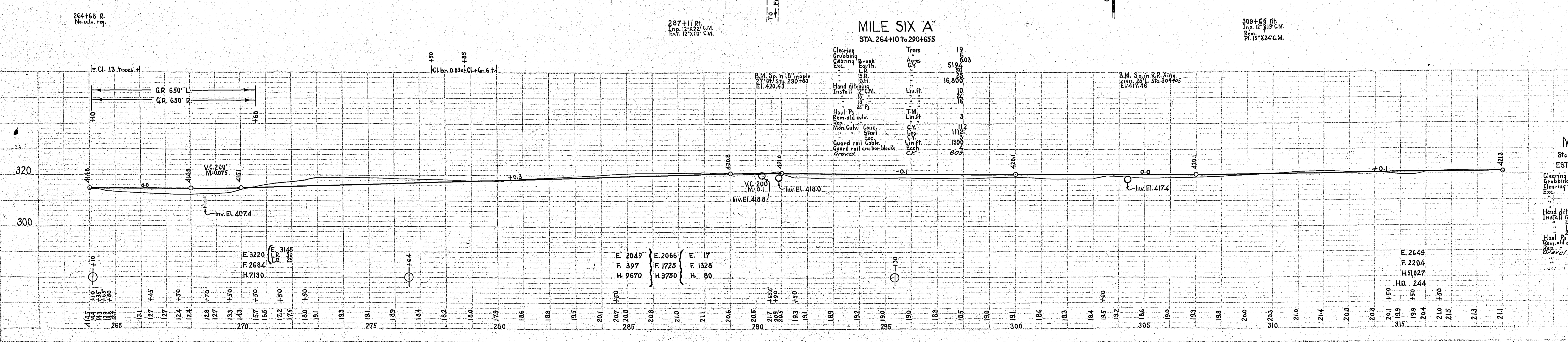
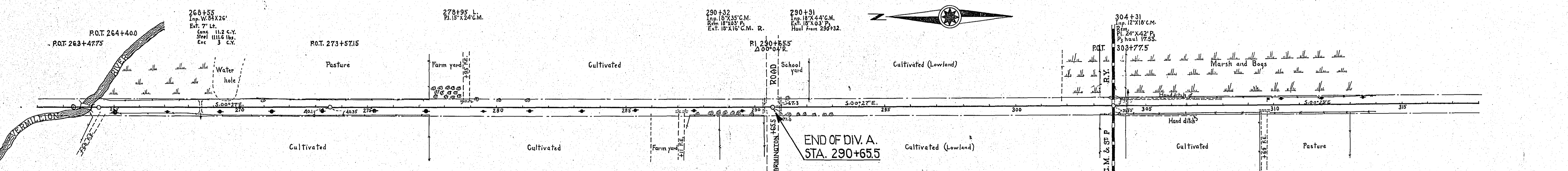
PLAN	DATE
DESIGNED BY	
CHECKED BY	
NOTES BOOK	
NO. OF SHEETS	
NO. OF THIS SHEET	

PROFILE	DATE
DESIGNED BY	
CHECKED BY	
NOTES BOOK	
NO. OF SHEETS	
NO. OF THIS SHEET	



**MILE FIVE**  
Sta. 209+57 to 264+10  
ESTIMATED QUANTITIES

Cleaning	Exc.	0
Grubbing	Exc.	377
Clearing brush	Exc.	28
Exc.	C.V.	38
Channel change	Exc.	28
Install 18" C.M.	Exc.	28
Rem. old culv.	Exc.	2061
18" deck under bridge	Exc.	10
Guard rail (each side)	Exc.	1652
Guard rail anchor block	Exc.	
Gravel	Exc.	



**MILE SIX 'B'**  
Sta. 290+65.5 to 316+80  
ESTIMATED QUANTITIES

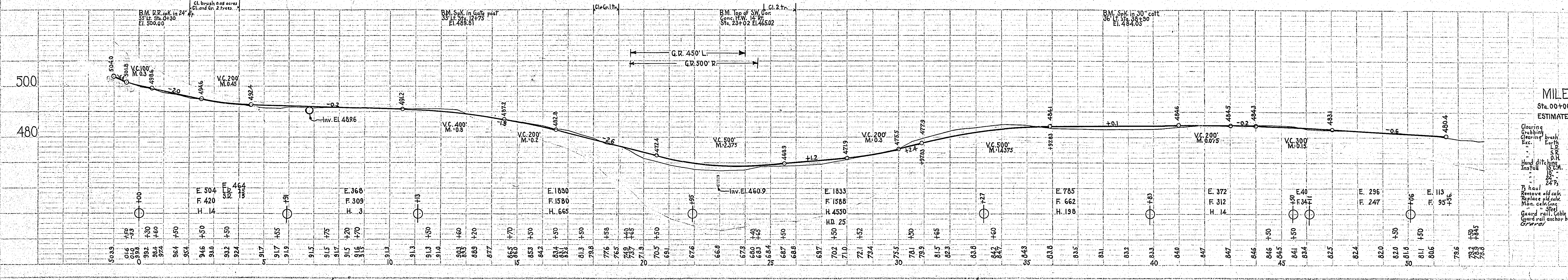
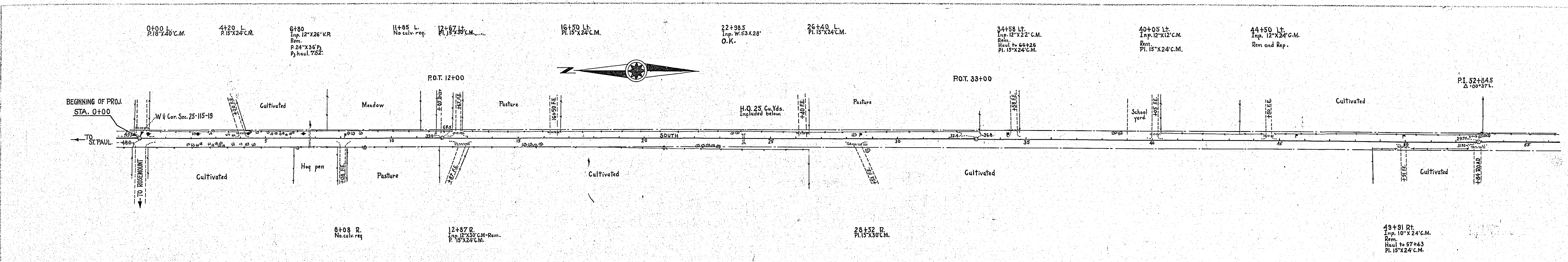
Cleaning	Exc.	0
Grubbing	Exc.	2666
Clearing brush	Exc.	5107
Exc.	C.V.	244
Hand ditch	Exc.	24
Install 18" C.M.	Exc.	42
Rem. old culv.	Exc.	1253
18" B	Exc.	8
Rem. old culv.	Exc.	792
Gravel	Exc.	

PLATE 2 - PLAN - PROFILE - C. P. & R. E. STANDARD  
SCOTT & BOND CO., NEW YORK

4804

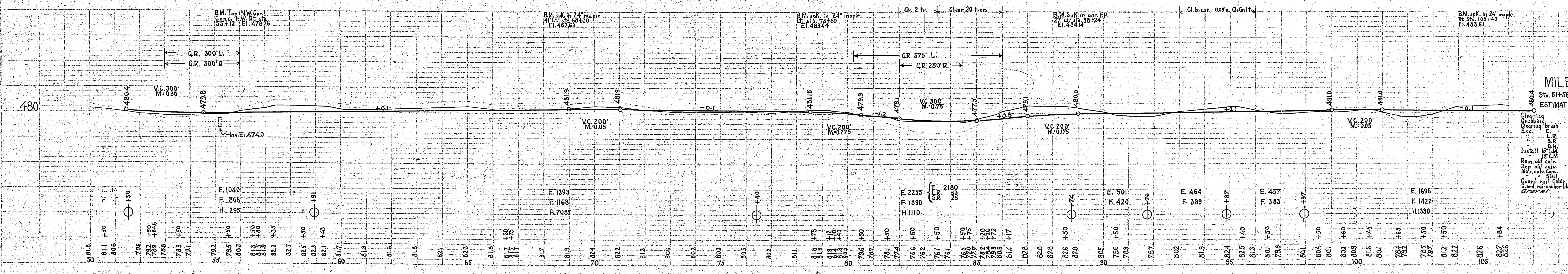
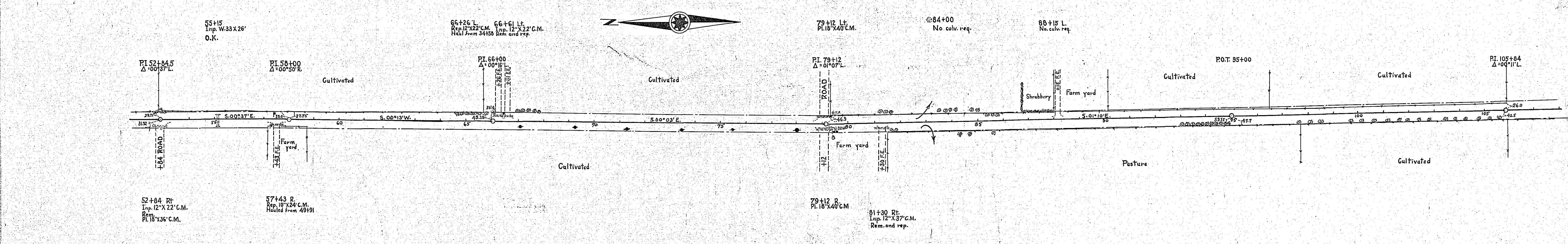
PLAN  
 SHEET  
 PLOTTED  
 CHECKED  
 DATE

PROFILE  
 SHEET  
 PLOTTED  
 CHECKED  
 DATE



**MILE ONE**  
 Sta. 00+00 to 51+56  
 ESTIMATED QUANTITIES

Clearing	Acres	5
Grubbing	Acres	0.05
Excavation	C.Y.	610
Fill	C.Y.	543
Hand digging	C.Y.	26
Install 15 C.M.	Lin. Ft.	26
Remove old culv.	Lin. Ft.	36
Replace culv.	Lin. Ft.	136
Non-culv.	C.Y.	24
Guard rail	Lin. Ft.	950
Guard rail anchor blocks	Lin. Ft.	186
Gravel	C.Y.	186



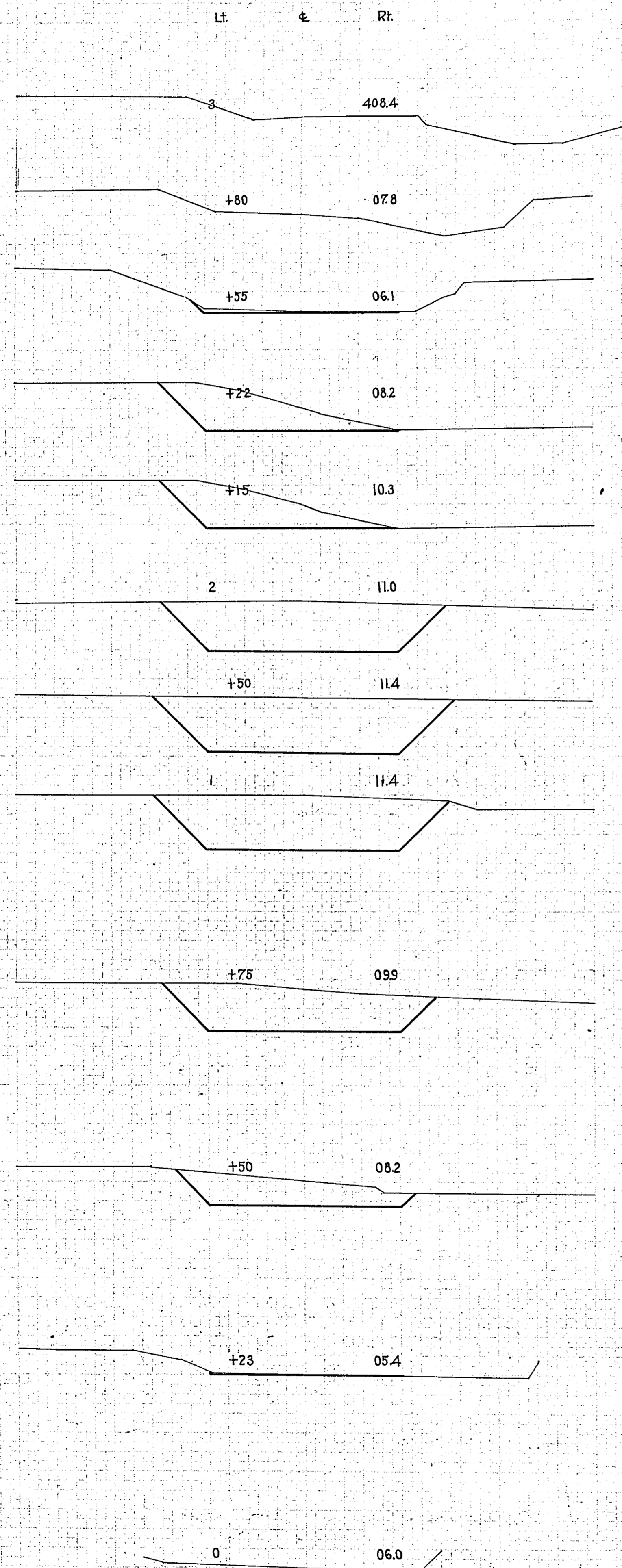
**MILE TWO**  
 Sta. 51+56 to 107+65  
 ESTIMATED QUANTITIES

Clearing	Acres	21
Grubbing	Acres	0.05
Excavation	C.Y.	778
Fill	C.Y.	80
Hand digging	C.Y.	982
Install 15 C.M.	Lin. Ft.	116
Remove old culv.	Lin. Ft.	185
Replace culv.	Lin. Ft.	1425
Non-culv.	C.Y.	185
Guard rail	Lin. Ft.	1425
Guard rail anchor blocks	Lin. Ft.	285
Gravel	C.Y.	1700

DATE	APPROVED
BY	VERMILLION
BY	PROJECT
BY	NO.

DATE	APPROVED
BY	VERMILLION
BY	PROJECT
BY	NO.

CROSS SECTIONS  
1" = 10'

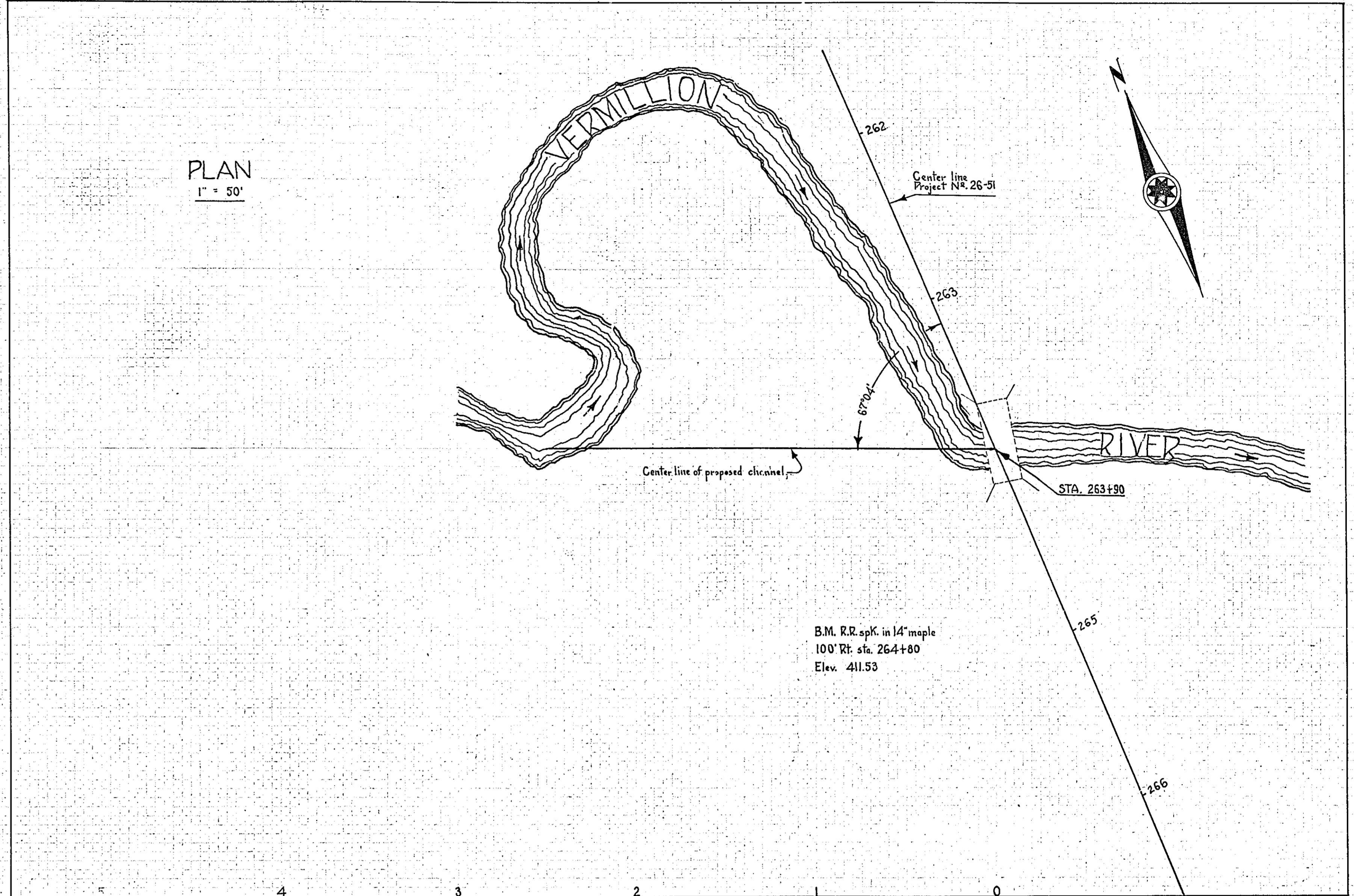


EXCAVATION

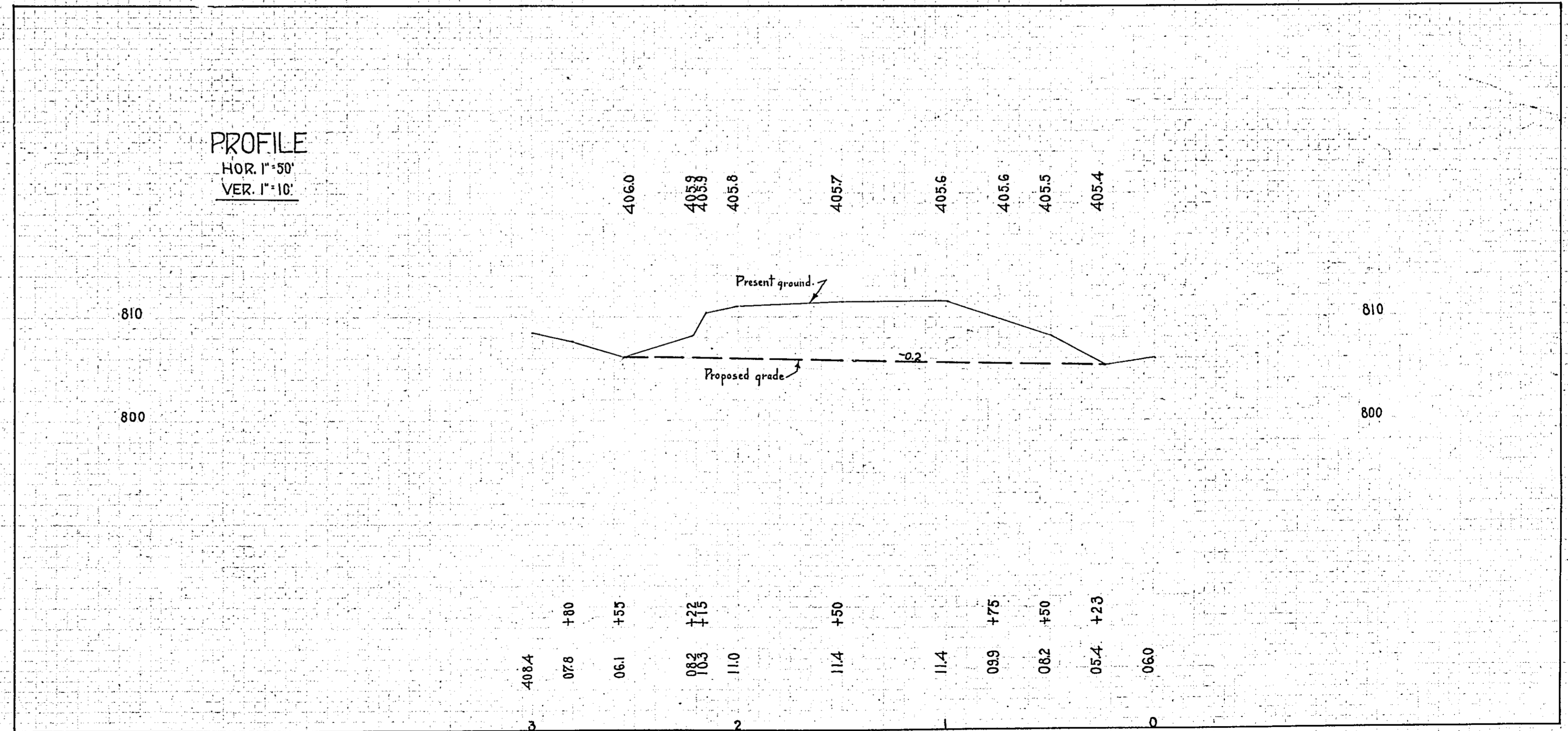
TOTAL 855 Cu. Yds.



PLAN  
1" = 50'



PROFILE  
HOR. 1" = 50'  
VER. 1" = 10'

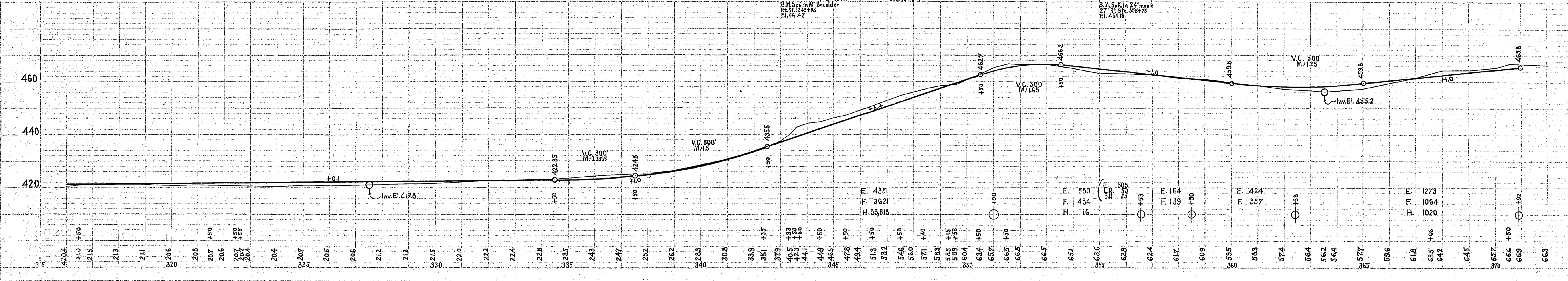
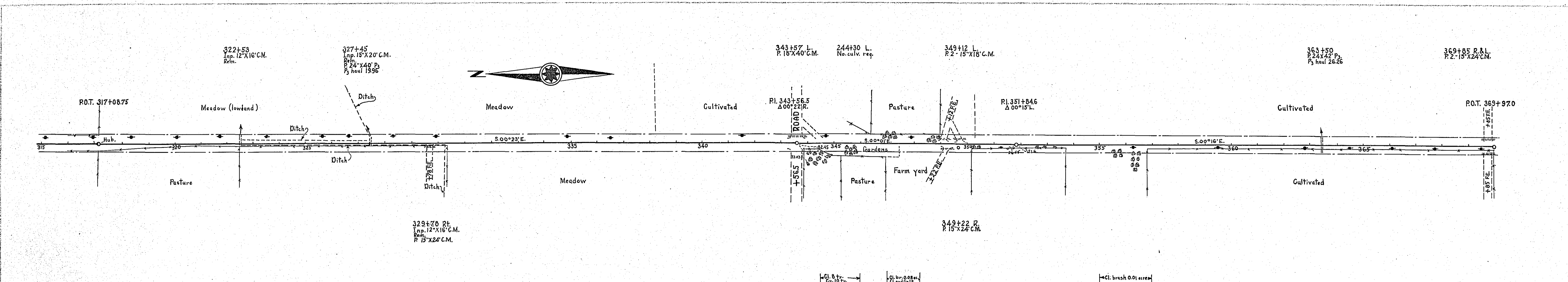


DETAIL OF CHANNEL CHANGE  
VERMILLION RIVER

STA. 263+90

7804

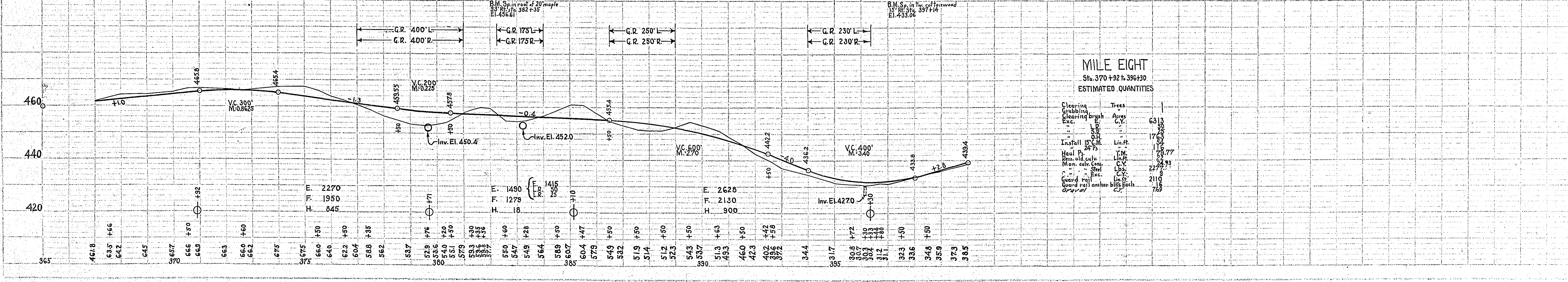
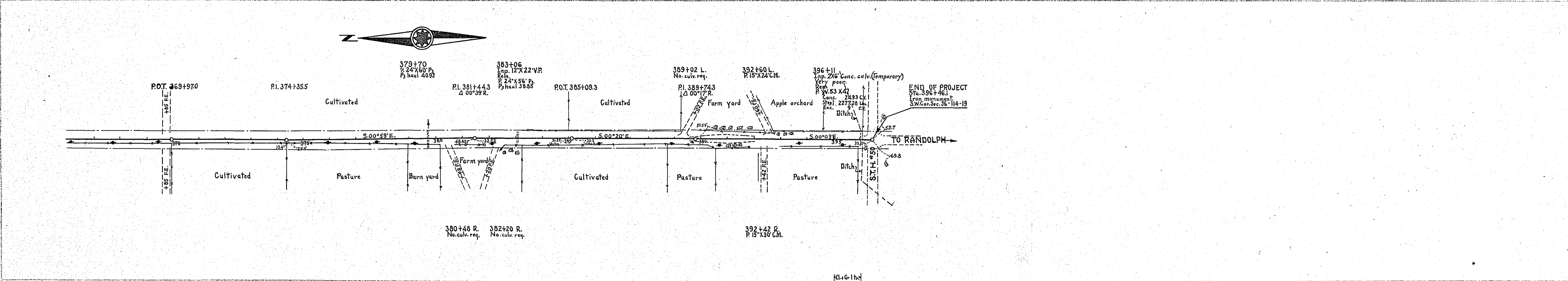
PLAN  
 DRAWN BY  
 CHECKED BY  
 DATE  
 SCALE  
 NOTES:  
 1. ALL DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.  
 2. SEE SHEET 2 FOR CONTINUATION.



**MILE SEVEN**  
 Sta. 316+82 to 370+92  
 ESTIMATE QUANTITIES.

Cleaning	Trees	9
Grubbing	Arms	11
Exc.	Exc.	67
Install 15" C.M.	Lin. Ft.	848
Haul P.	T.M.	40
Rem. old culv.	Lin. Ft.	2622
Guard rail	Lin. Ft.	32
Gravel	C.Y.	1639

PROFILE  
 DRAWN BY  
 CHECKED BY  
 DATE  
 SCALE  
 NOTES:  
 1. ALL DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.  
 2. SEE SHEET 2 FOR CONTINUATION.

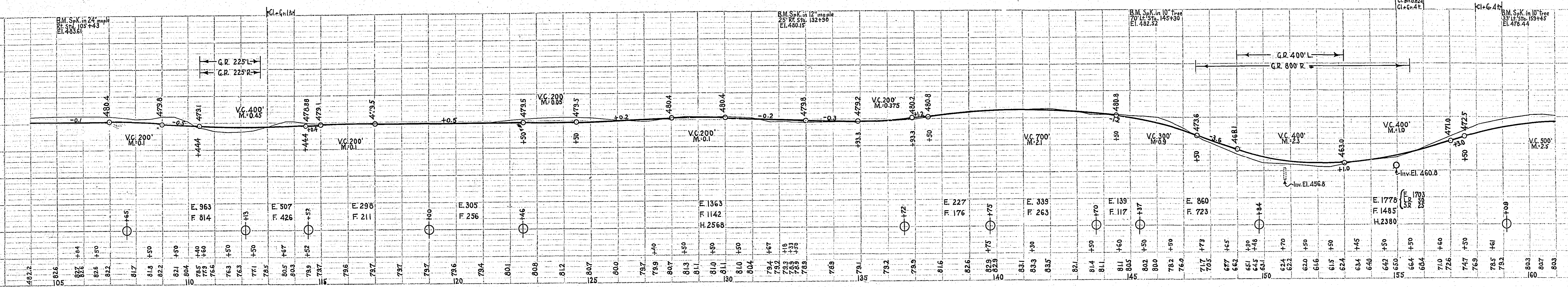
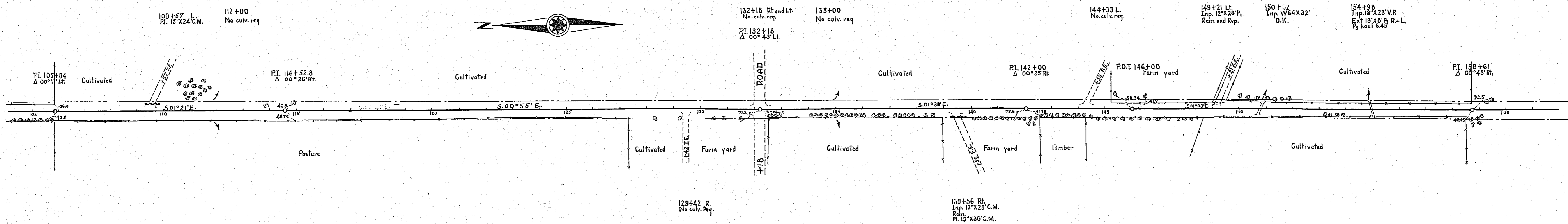


**MILE EIGHT**  
 Sta. 370+92 to 396+70  
 ESTIMATE QUANTITIES.

Cleaning	Trees	63
Grubbing	Arms	11
Exc.	Exc.	63
Install 15" C.M.	Lin. Ft.	1168
Haul P.	T.M.	177
Rem. old culv.	Lin. Ft.	2273
Guard rail	Lin. Ft.	2110
Gravel	C.Y.	769

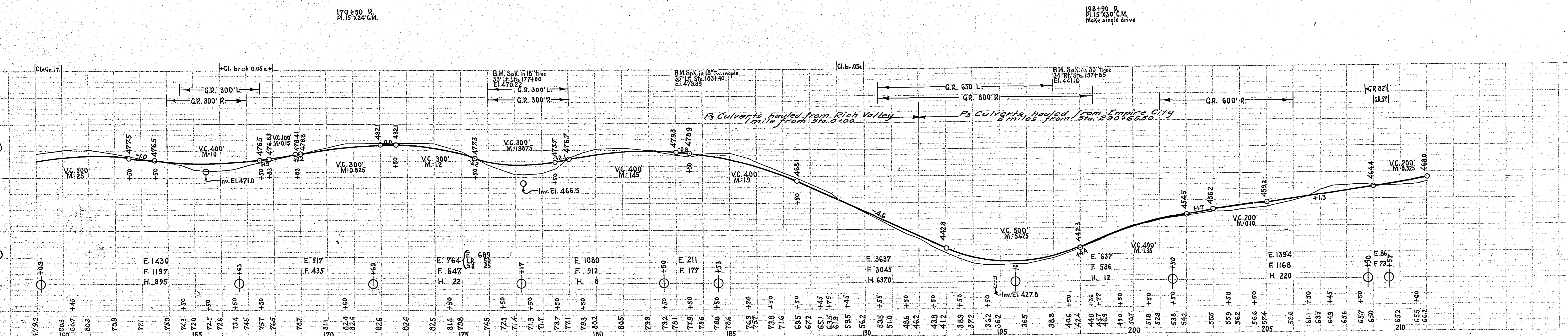
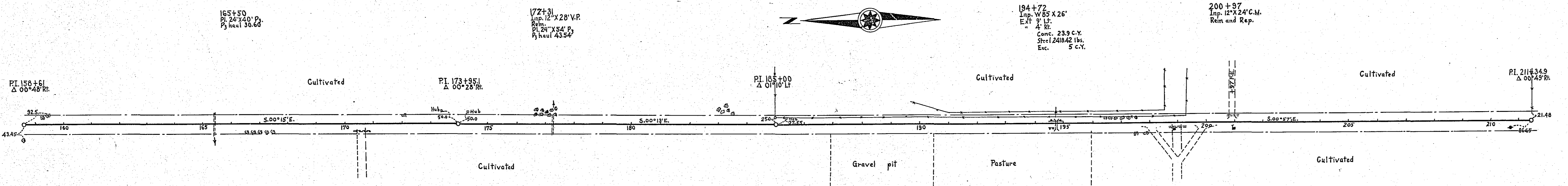
DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PLAN: \_\_\_\_\_  
 DRAWING NO.: \_\_\_\_\_  
 NOTE BOOK ALIGNMENT CHECKED: \_\_\_\_\_  
 BY: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PLAN: \_\_\_\_\_  
 DRAWING NO.: \_\_\_\_\_  
 NOTE BOOK ALIGNMENT CHECKED: \_\_\_\_\_  
 BY: \_\_\_\_\_



**MILE THREE**  
 Sta. 107+65 to 159+03  
 ESTIMATED QUANTITIES

Cleaning brush	Acres	670
Exc. brush	C.Y.	500
Exc. brush	C.Y.	493
Install 18" C.M.	Lin. Ft.	34
Rem. old culv.	Lin. Ft.	15
Gravel	C.Y.	1650
Gravel	C.Y.	1530



**MILE FOUR**  
 Sta. 159+09 to 209+57  
 ESTIMATED QUANTITIES

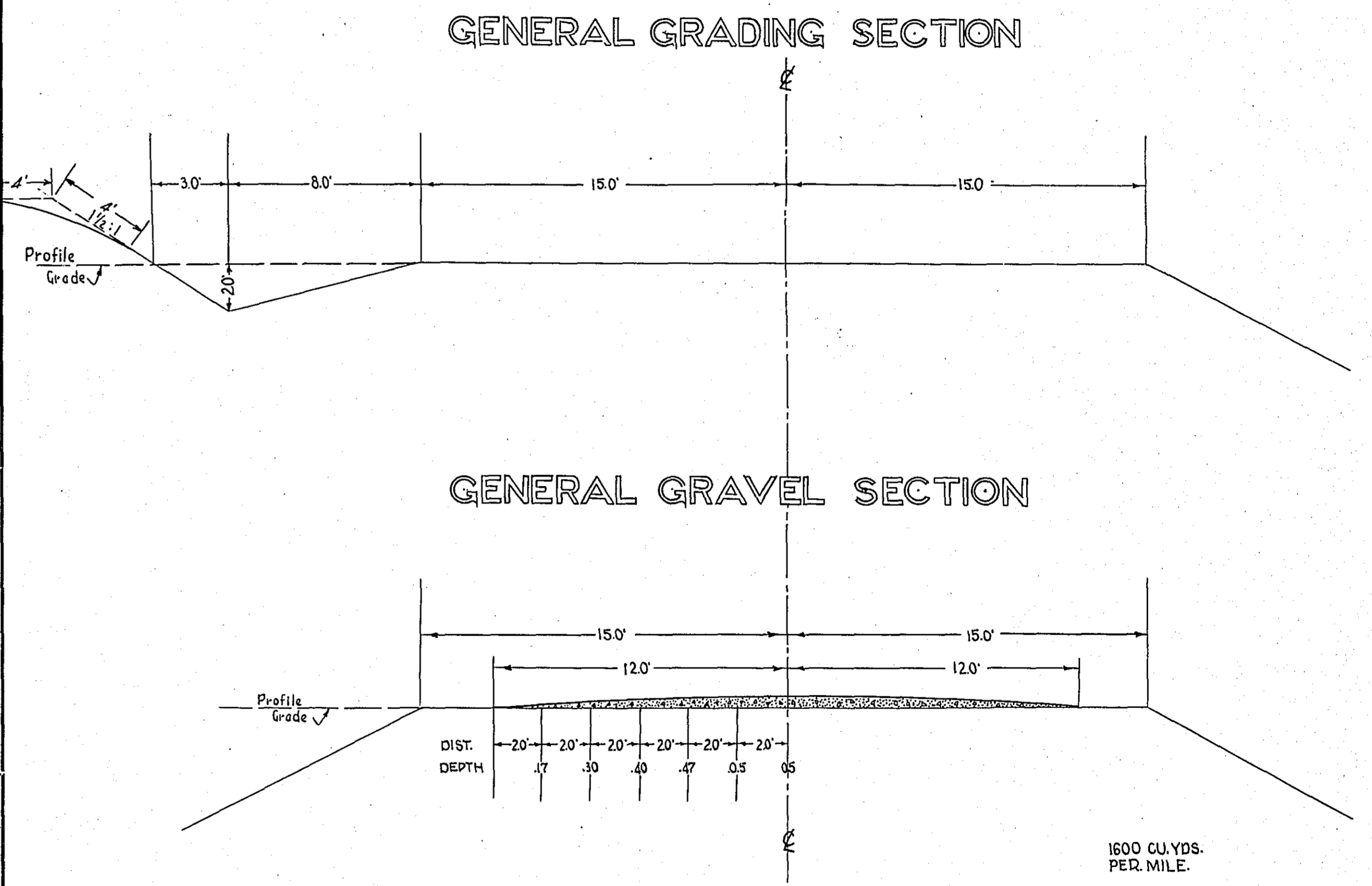
Cleaning brush	Acres	98
Exc. brush	C.Y.	750
Exc. brush	C.Y.	750
Install 18" C.M.	Lin. Ft.	34
Rem. old culv.	Lin. Ft.	15
Gravel	C.Y.	2410
Gravel	C.Y.	3280

STATEMENT OF ESTIMATED QUANTITIES AND COSTS.

TYPICAL CROSS SECTIONS AND DETAILS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SEC.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	MINN.					

ITEM	UNIT	MILE												TOTAL ESTIMATED QUANTITIES	ESTIMATED UNIT PRICES	AMOUNTS	TOTALS
		6.9 Sta. 220+00 to Sta. 316+80	7 Sta. 316+80 to Sta. 370+20	8 Sta. 370+20 to Sta. 456+30													
1	Clearing brush	Acre		009												009	
2	Clearing Tree			9	1										10		
3	Grubbing	Acre															
4	Grubbing Tree			11	1										12		
5	Excavation - Earth	Cu. Yd.	2666	6717	6313										15696		
6	Excavation - Loose Rock	Cu. Yd.		50	50										100		
7	Excavation - Solid Rock	Cu. Yd.		25	25										50		
8	Excavation - Overhaul	Cu. Yd.	51107	82849	1763										137719		
9	Special Excavation	Lin. Ft.															
10	Hand Ditching	Cu. Yd.	244												244		
11	Tile Drain	in.															
12	Tile Drain	in.															
13	Tile Drain	in.															
14	Porous Back Fill Material	Cu. Yd.															
15	Stone Rip - Rip	Cu. Yd.															
16	Heaving Rip - Rip	Cu. Yd. mile															
17	Install C.M. 15"	Lin. Ft.	24	132	54										210		
18	Install C.M. 18"	Lin. Ft.		40											40		
19	Install	Lin. Ft.															
20	Install	Lin. Ft.															
21	Install	Lin. Ft.															
22	Install	Lin. Ft.															
23	Install	Lin. Ft.															
24	Install	Lin. Ft.															
25	Install 24" P <sub>3</sub>	Lin. Ft.	42	82	116										240		
26	Install 30" P <sub>3</sub>	Lin. Ft.															
27	Install 36" P <sub>3</sub>	Lin. Ft.															
28	P <sub>1</sub> Culvert Haul	Ton Mile															
29	P <sub>3</sub> Culvert Haul	Ton Mile	17.53	46.22	79.77										143.52		
30	Remove Old Curb	Lin. Ft.	37	52	22										111		
31	Replace Old Curb	Lin. Ft.	3												3		
32	TOTAL ESTIMATED COST OF GRADING (IN 'TOTALS' COLUMN)																\$5484.82
33	C.M. Culv. Material 15"	Lin. Ft.	24	132	54										210		
34	C.M. Culv. Material 18"	Lin. Ft.		40											40		
35	Culv. Material	Lin. Ft.															
36	Culv. Material	Lin. Ft.															
37	Culv. Material	Lin. Ft.															
38	Culv. Material	Lin. Ft.															
39	P <sub>3</sub> Culv. Material 24"	Lin. Ft.	42	82	116										240		
40	P <sub>3</sub> Culv. Material 30"	Lin. Ft.															
41	P <sub>3</sub> Culv. Material 36"	Lin. Ft.															
42	TOTAL ESTIMATED COST OF PORTABLE CULVERT MATERIAL (IN 'TOTALS' COLUMN)																\$994.32
42	Gravel Pit Stripping	Cu. Yd.	650												650		
43	Screening	Cu. Yd.	192	1639	769										3200		
44	Loading	Cu. Yd.	192	1639	769										3200		
45	Hauling	Cu. Yd. Mile	602	418	577										1597		
46	Shaping & Compacting	Man Hour	50	103	49										202		
47	Shaping & Compacting	Man & Team Hour	116	241	113										470		
48																	
49																	
50																	
51	TOTAL ESTIMATED COST OF GRAVEL HAUL (IN 'TOTALS' COLUMN)																\$2637.25
52	Gravel Material F. O. B. Pit	Cu. Yd.															
53	Freight (If any)	Cu. Yd.															
54	Unloading from Cars	Cu. Yd.															
55	TOTAL ESTIMATED COST OF GRAVEL MATERIAL (IN 'TOTALS' COLUMN)																
55	Fine Grading - Exc. & Emb.	Cu. Yd.															
56	Shoulders - Earth	Cu. Yd.															
57																	
58																	
59	Pavement	Sq. Yd.															
60	Integral Curb (One Course Concrete)	Lin. Ft.															
61	Stopping Curb	Lin. Ft.															
62	Surface Drain	Lin. Ft.															
63	Surface Drain Basins	Basin															
64	Bridge Approach Slabs (Concrete)	Slab															
65	Bridge Approach Slabs (Asph)	Slab															
66																	
67																	
68	TOTAL ESTIMATED COST OF PAVEMENT CONSTRUCTION (IN 'TOTALS' COLUMN)																
69	Concrete	Cu. Yd.			2493										2493		
70	Reinforcing Steel	Lb.			2277										2277		
71	Excavation - Earth	Cu. Yd.			9										9		
72	Excavation - Loose Rock	Cu. Yd.															
73	Excavation - Solid Rock	Cu. Yd.															
74	Bridge	* Bridge No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.		
75	Station																
76	Concrete	Cu. Yd.															
77	Reinforcing Steel	Lb.															
78	Structural Steel	Lb.															
79	Piling	Lin. Ft.															
80	Temporary Crossing	Lump Sum															
81	Removing old Bridge	Lump Sum															
82	Bituminous Surface	Sq. Yd.															
83																	
84	TOTAL ESTIMATED COST OF STRUCTURES (IN 'TOTALS' COLUMN)																\$746.22
85	Guard Rail - Cable	Lin. Ft.			2110										2110		
86	Guard Rail Anchor Blocks Complete				16										16		
87	Excavation for Gutter	Cu. Yd.															
88	TOTAL ESTIMATED COST OF MISCELLANEOUS ITEMS (IN 'TOTALS' COLUMN)																\$466.00
GRAND TOTAL DIK. B																\$13328.97	



\* NOTE: BRIDGE ITEMS LISTED UNDER BRIDGE NUMBERS IN MILE COLUMNS REGARDLESS OF LOCATION

4804

STATEMENT OF ESTIMATED QUANTITIES AND COSTS.

Main table with columns for ITEM, UNIT, MILE 1 to MILE 6, TOTAL ESTIMATED QUANTITIES, ESTIMATED UNIT PRICES, AMOUNTS, and TOTALS. Includes sub-totals for Grading, Portable Culverts, Gravel Haul, Gravel Material, Pavement Construction, and Structures.

GENERAL GRADING SECTION and GENERAL GRAVEL SECTION diagrams. Includes a table for FEDERAL ROAD DIST. NO., STATE, FED. AID PROJ. NO., SEC., FISCAL YEAR, SHEET NO., and TOTAL SHEETS. Also contains the note: 'NOTE: BRIDGE ITEMS LISTED UNDER BRIDGE NUMBERS IN MILE COLUMNS REGARDLESS OF LOCATION'.

CONVENTIONAL SIGNS & ABBREVIATIONS

STATE LINE	-----	EXCAVATION	.....	F
COUNTY LINE	-----	EMBANKMENT	.....	F
TOWNSHIP LINE	-----	OVERHAUL	.....	H
SECTION LINE	-----	SURFACING	.....	S
CITY, VILLAGE, OR BOROUGH	-----	GUARD RAIL	.....	GR
FENCE LINE	-----	INTERSECTION ANGLE	.....	A
RIGHT-OF-WAY LINE	-----	RADIUS	.....	R
TRAVELLED WAY	-----	ELEVATION	.....	E
RAILROADS	-----	VERTICAL CURVE	.....	VC
RETAINING WALL	-----	BENCH MARK	.....	B.M.
BASE OF SURVEY LINE	-----	SECTIONAL CONCRETE CULVERT	.....	P.C.
LEVEE	-----	CORROGATED METAL CULVERT	.....	C.M.
GRAVEL PIT	.....	CULVERT HAUL	.....	F.H.
SAND PIT	.....	TON MILES	.....	T.M.
CLAY PIT	.....	PLACE	.....	P
ROCK QUARRY	.....	IN PLACE	.....	Imp.
CULVERTS	.....	REPLACE	.....	Rep.
PLAIN	.....	RIGHT	.....	R
WITH FACEWALLS	.....	LEFT	.....	L
WITH WINGWALLS	.....	HAND DITCHING	.....	H.D.
DROP INLET	.....	POINT OF CURVE	.....	P.C.
POWER POLE LINE	.....	POINT OF TANGENT	.....	P.T.
TELEPHONE OR TELEGRAPH LINE	.....	POINT OF INTERSECTION	.....	P.I.
MARSH	.....	SPECIAL EXCAVATION	.....	S.E.
HEDGE, BUSH, OR TIMBER	.....	SPECIAL FLOWING	.....	S.P.
GROUND ELEVATION	.....	TELEPHONE POLE	.....	Tel.P.
GRADE ELEVATION	.....			

OFFICE OF COUNTY ENGINEER  
RAMSEY COUNTY

Plan and Profile of County Project No. 26-51

COUNTY OF DAKOTA  
Sta. 0+00 Sta. 396+46.1  
From 1/4 COR. BTW. SECS. 25 & 26-115-19 To S.T.H. NO. 50  
Give proper reference to Sections, Township and Range

GROSS LENGTH 39646.1 FEET 7.50 MILES  
LENGTH OF EXCEPTIONS FEET MILES  
NET LENGTH 396146.1 FEET 7.50 MILES  
PLAN, 1 Inch = 200 Feet  
PROFILE, Horz. 1 Inch = 200 Feet. Vert. 1 Inch = 20 Feet  
SCALES WORKING PLANS Horz. 1 Inch = 100 Feet Vert. 1 Inch = 10 Feet Cross-Sections, 1 Inch = 10 Feet

LAYOUT  
SCALE, 1/2 Inch = 1 Mile

INDEX OF SHEETS

Sheet No. 1. Title Sheet and Layout Map

" No. 2.3 Typical Cross-Sections and Statement Div. A & Div. B.

" No. 4. Plan and Profile, Sta. 0+00. to Sta. 107+65

" No. 5. " " " " 107+65 " " 209+57

" No. 6. " " " " 209+57 " " 316+80

" No. 7. " " " " 316+80 " " 396+30

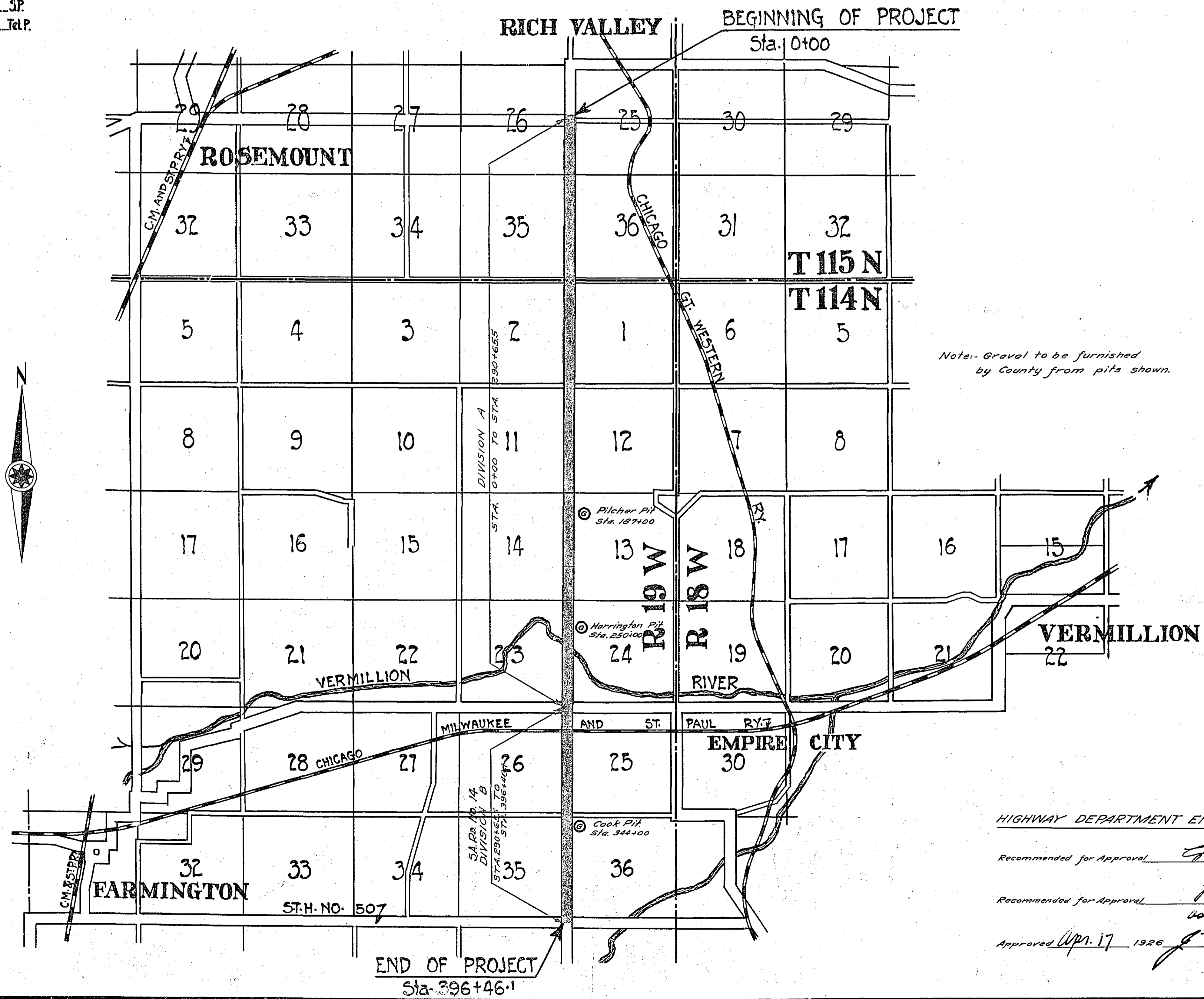
" No. 8 Channel Change

" Nos. 9 to 18 inc. Cross Sections

" No. 19 Details of Monolithic Culk Extensions

" No. 20 Bridge Survey

" No. 21 Bridge Details



4/19/26  
"0"

Plans Approved *J. Swan* DAKOTA CO. SURVEYOR

Approved by Dakota Co. Board *Apr 26 1926*  
*W. B. Beane* CHAIRMAN OF CO. BOARD

Planned by *H. W. Newell* DESIGNING HIGHWAY ENGINEER - RAMSEY CO.  
Date of Resolution for Preparation of Plans Apr 21, 1925

HIGHWAY DEPARTMENT ENDORSMENT TO DIV. B

Recommended for Approval *H. W. Newell* DIVISION ENGINEER

Recommended for Approval *H. Chapman* CHIEF ENGINEER

Approved *Apr 17 1926* *J. H. Hanson* CHIEF ENGINEER

Recommended for Approval *Percy R. Bannister* CONSTRUCTION ENGINEER

Recommended for Approval *R. J. Hollings* ENGINEER

Approved 192 *J. H. Hanson* CHAIRMAN OF COUNTY BOARD