

**PLANS**

**NOT**

**TO**

**SCALE**

# SUMMARY

## NOTES

**LENGTH - NET - 2.799 MILES (EXCLUDING BRIDGE)**  
**GROSS - 2.874 MILES**  
**BORROW -** Borrow as indicated on Plans denotes location where shortage of material occurs. Borrow Pits or source of Borrow to be designated by the Engineer.

**SHRINKAGE -** A Shrinkage factor of 10% used on earth placed in Embankment.  
**OVERHAUL -** Frechtal allowance - 400 feet.

**EMBANKMENT -** Embankment quantities as shown include shrinkage.  
**GRADES -** Grades shown on Profile are Sub Grade. See Typical Section.

**GUARD RAIL -** Standard Railing to be placed on all dangerous curves or fills, or where designated by the Engineer.

**PROJECTIONS -** Where Projections are shown on Plans, the relation of the original or staked line to the Projection must be checked in the field by reference to, and a study of, the cross sections.

**SUPERELEVATION -** All Curves of over 3° Curvature are to be superelevated.

STATION		EXCAVATION		EMBANKMENT		OVER HAUL
FROM	TO	COMMON	BORROW	PLUS 10% WASTE		
0+00	6+60	283		283		110
6+60	9+70	74		74		
9+70	11+25	41		41		3240
11+25	21+10	1751		1751		350
21+10	29+60	618		618		4500
29+60	44+60	2029		2029		2800
44+60	54+70	2726		2726		350
54+70	60+45	1301		1301		570
60+45	66+55	1683		1683		780
66+55	73+25	1228		1228		1050
73+25	84+40	940		940		
84+40	86+55	201		201		480
86+55	94+00	473		473		640
94+00	102+90	1231		1231		
102+90	106+75	613		613		40
106+75	111+65	820		820		
111+65	113+25	50		50		
113+25	124+97	194	4106	4300		
Grade for Approach to Country Club		0	1300	1300		
SUN RIVER BRIDGE			3060	3118		
128+93	132+28	58		58		70
132+28	136+90	994		994		1230
136+90	144+45	1147		1147		
144+45	151+00	352		352		
TOTALS		18807	8466	27273		16210

POLES TO MOVE			
STATION	LEFT	RIGHT	COMPANY
2+05	/		Postal Telegraph
2+72	/	/	"
3+28	/		"
26+50	/		"
32+80	/	/	M. S. T. Co.
45+15	/		"
46+42	/		"
63+40	/		"
64+10	/		"
64+30	/		"
90+95	/	/	Montana Power Co.
106+15	/		G. N. Ry. Co.
106+24	/		"
TOTAL	9	4	

GUARD RAIL			
FROM	TO	LEFT	RIGHT STD
44+00	47+52		352
49+48	51+00		152
55+00	63+00		800
120+49	124+97	448	352
Country Club Approach		320	344
128+93	133+38	520	520
TOTAL		1288	2520

STATION	CORR. METAL			CU. YDS. CONCRETE CLASS B CONC. IN HOWLS		CU. YDS. CLASS B CONC. IN HOWLS		HOWL. STAND. AFD	FOE
	15"	18"	24"	15"	21"	15"	21"		
3+75			28	1.34	27		1.05	M6	Drainage
4+00	24				24				Road Approach - Right
20+00			34	1.98		33	1.64	M6	Drainage
27+50			42		42				Road Approach - Left
28+00			28	1.34	27		1.05	M6	Drainage
34+00			28	1.34	27		1.05	"	"
41+00			46	.67	45		.53	"	1 Headwall
47+00			38	.67	39		.53	"	"
54+27			30	1.34	30		1.05	"	1 Headwall
63+19			44	.67	45		.53	"	"
74+00			30	1.34	30		1.05	"	"
87+30			36	1.98		36	1.64	"	Skew
95+00			30	1.34	30		1.05	"	"
100+00			30	1.34	30		1.05	"	"
104+55			30	1.34	30		1.05	"	" & Irrigation
107+64			44	1.98		45	1.64	"	"
<del>113+55</del>			<del>36</del>	<del>1.98</del>	<del>36</del>		<del>1.64</del>	"	"
132+75			40	1.98		39	1.64	"	"
143+00			30	1.98		30	1.64	"	"
TOTALS	24	404	184	22.63	462	183	18.19		

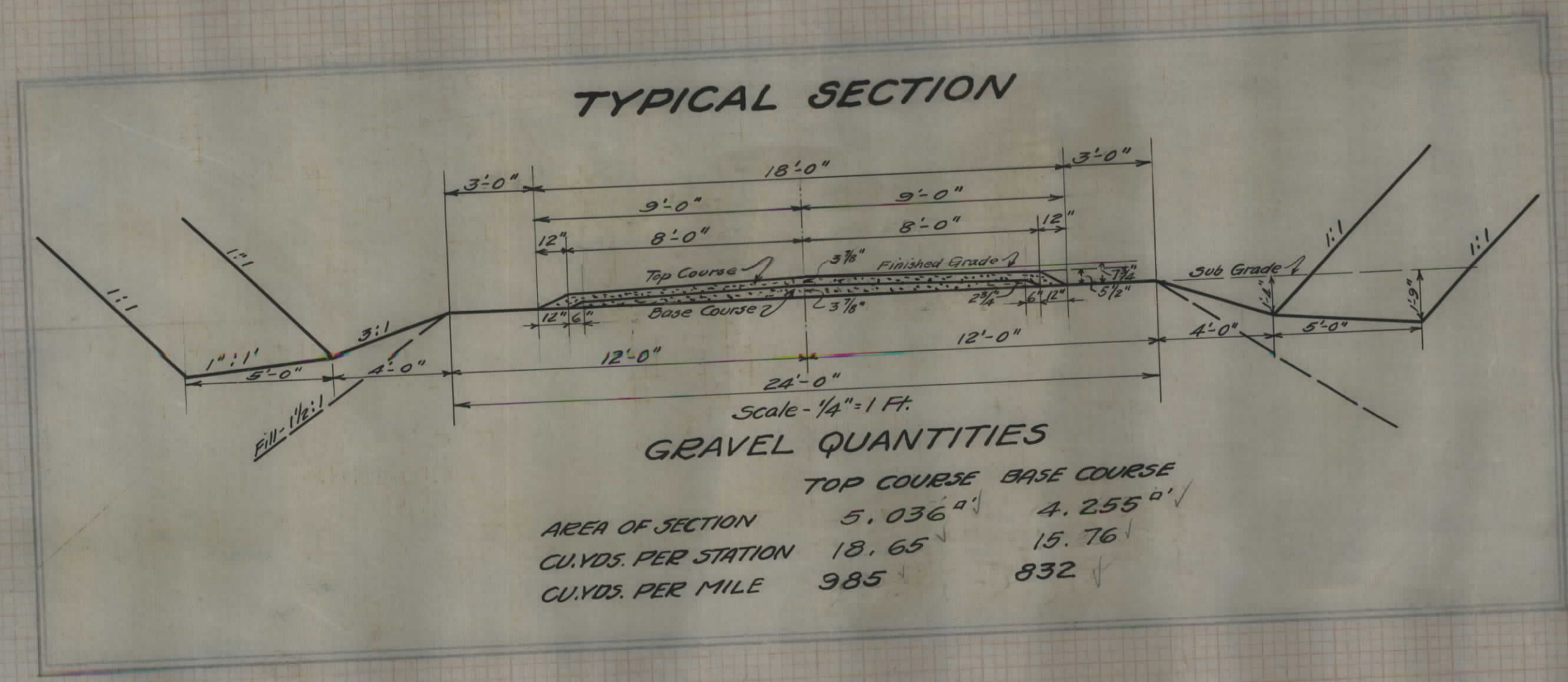
HAND PLACED RIPRAP  
 Sta. 103+75 to 109+00 - 100 Cu. Yds.

CLEARING  
 STA. 127 to STA. 133 - 0.8 ACRES

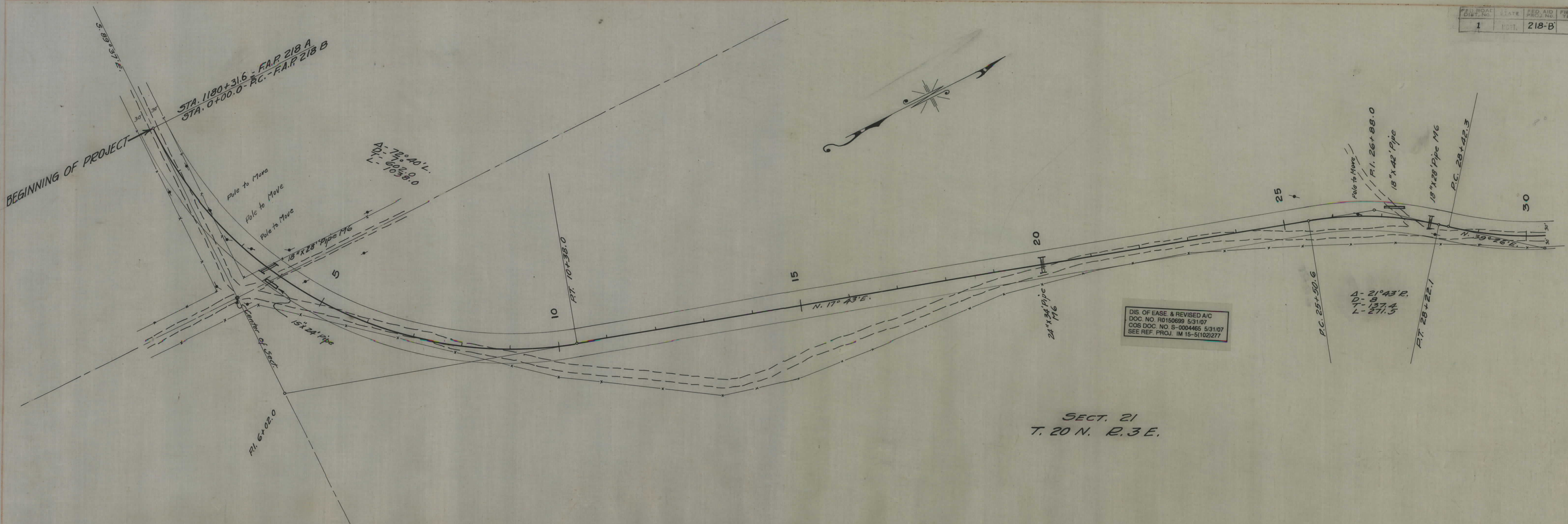
STOCK PASS  
 STA. 113+55 - Drawing No. 188 - 6'x6'x24'  
 5.9 M.F.B.M. Lumber

SHEDS TO MOVE  
 STA. 128+46 - 11'x16' Cow Shed.  
 STA. 128+75 - 11'x16' Chicken House.

STATION		STEEL - LBS.	Bronze Plates	CONCRETE Class 'A' Conc. in Deck (1,2,3)	Excav. For. Found.	Piling	Gravel Backfill	REMARKS		
From	To	Struct.	Rein.							
124+97.0	128+93.0	321,000	75,000	4,500	480	250	415	2500	60	
		321,000	75,000	4,500	480	250	415	2500	60	

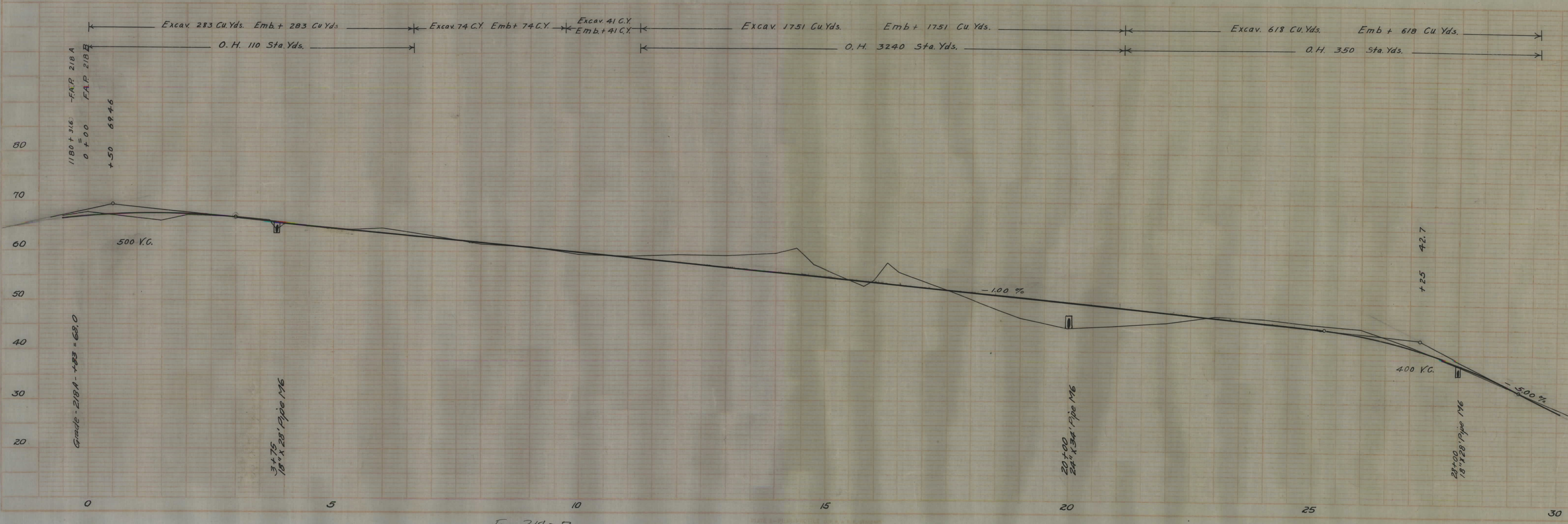


STATION	LENGTH	ADDITIONS AND DEDUCTIONS			EXTRA GRAVEL FOR CURVE WIDENING	CU. YDS. GRAVEL TOP COURSE	CU. YDS. GRAVEL BASE COURSE	
		FROM	TO	ADD DED. FOR				
0+00.0	151+00.0	15100.0	14779.0	75.0	Equation	125	2756	2329
					Bridge			
TOTAL	15100.0	14779.0		75.0	396.0	125	2756	2329



SECT. 21  
T. 20 N. R. 3 E.

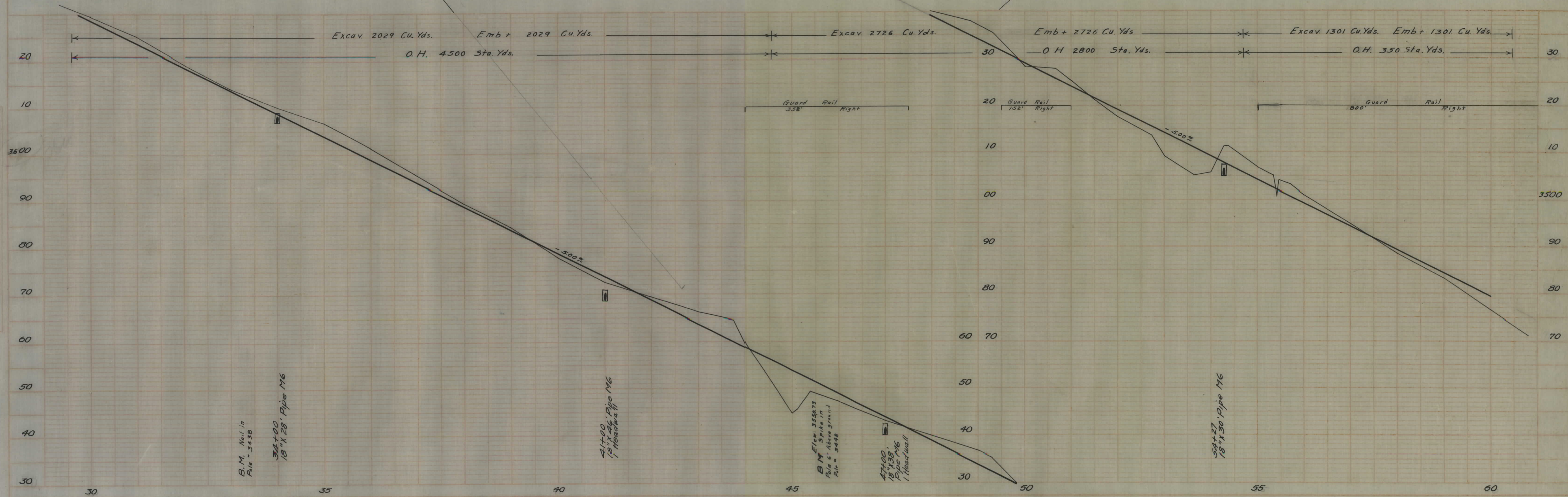
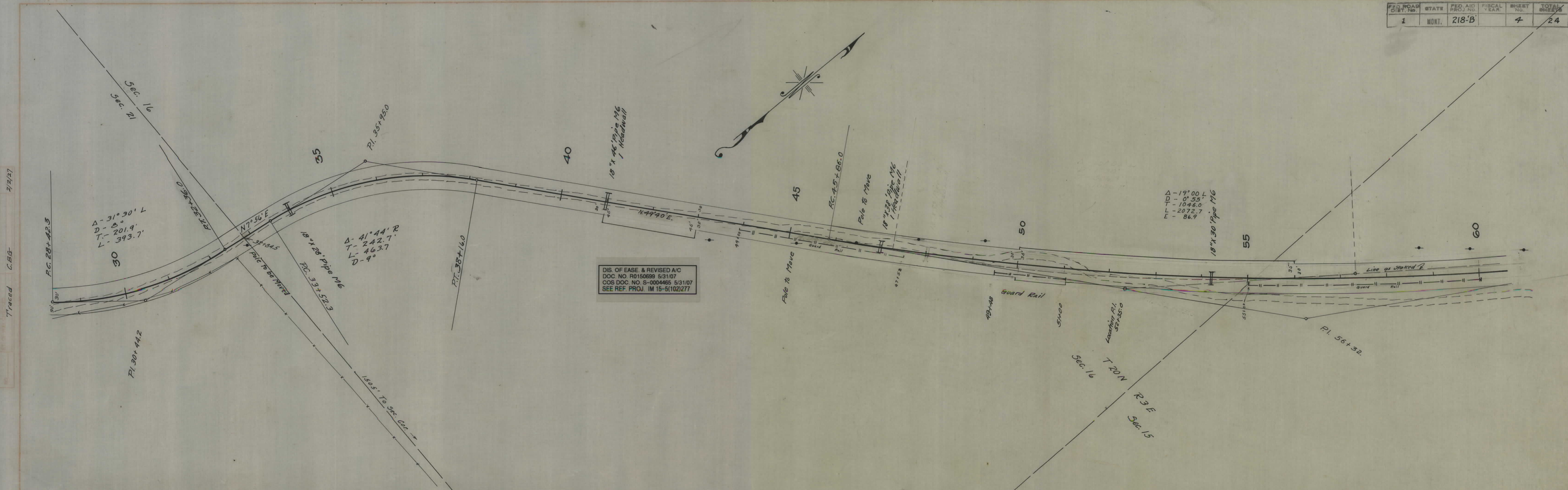
DIS. OF EASE & REVISED A/C  
DOC. NO. R0150699 5/31/07  
COS DOC. NO. S-0004465 5/31/07  
SEE REF. PROJ. IM 15-5(102)277



F. 218-B

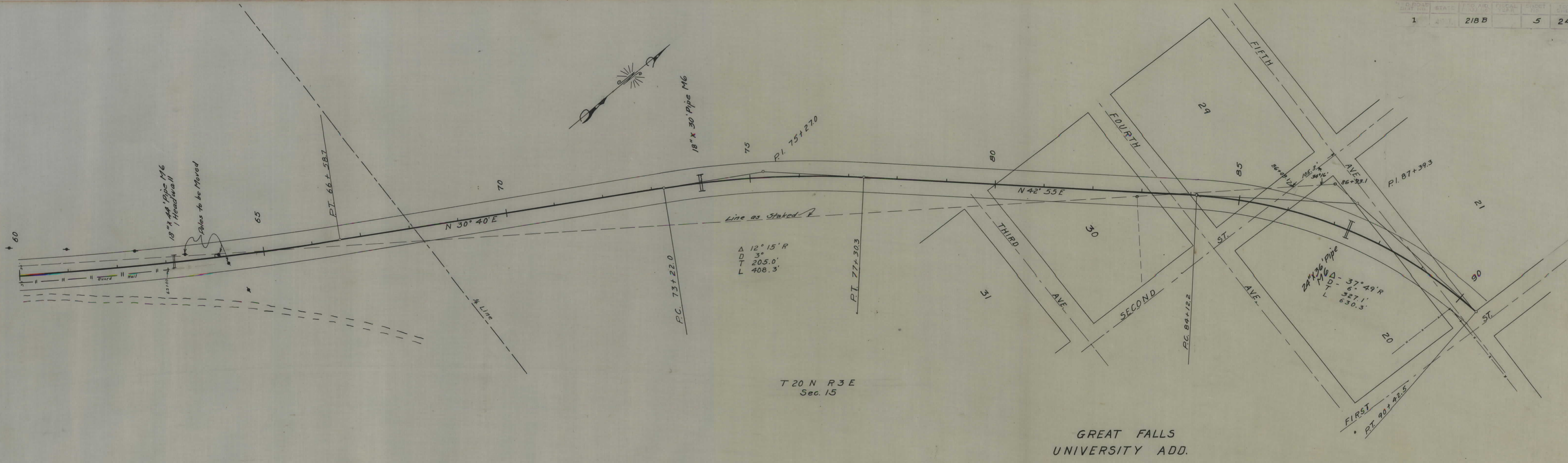
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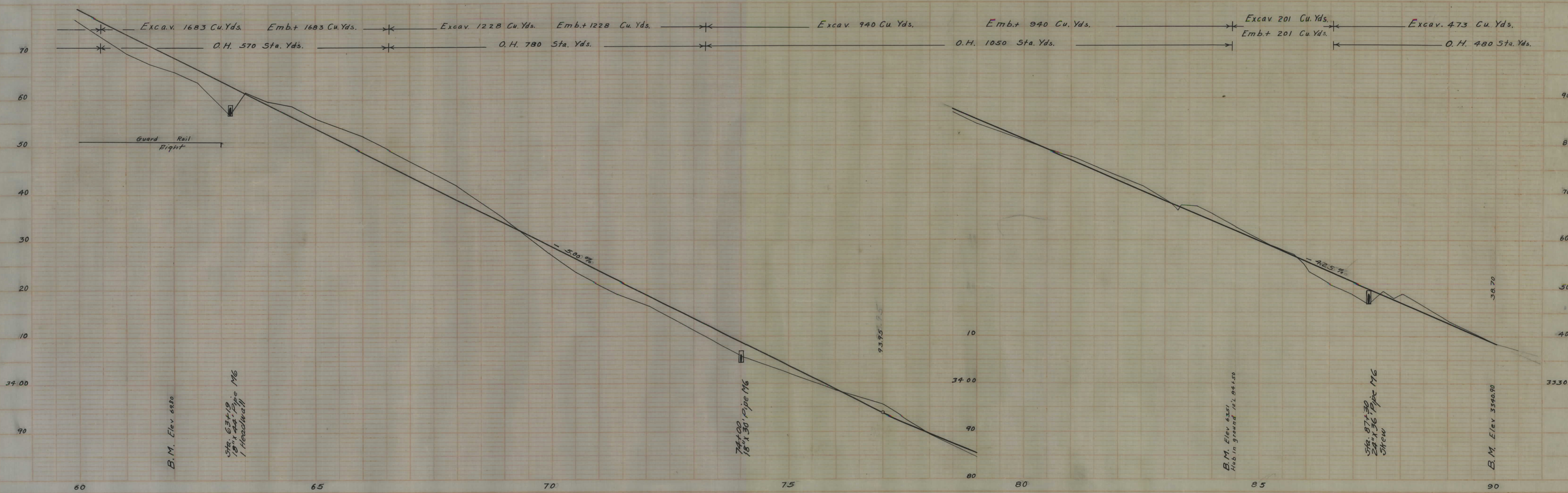


Traced C.B.G. 2/27  
 2/14/27  
 E.O.C.  
 & Tr.

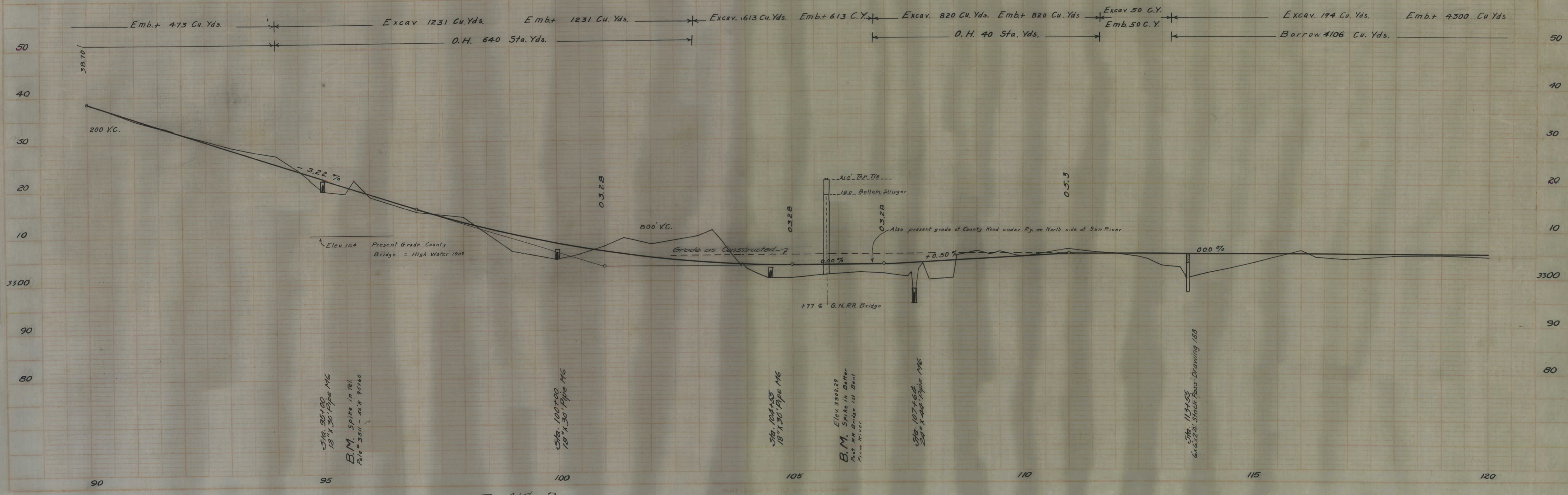
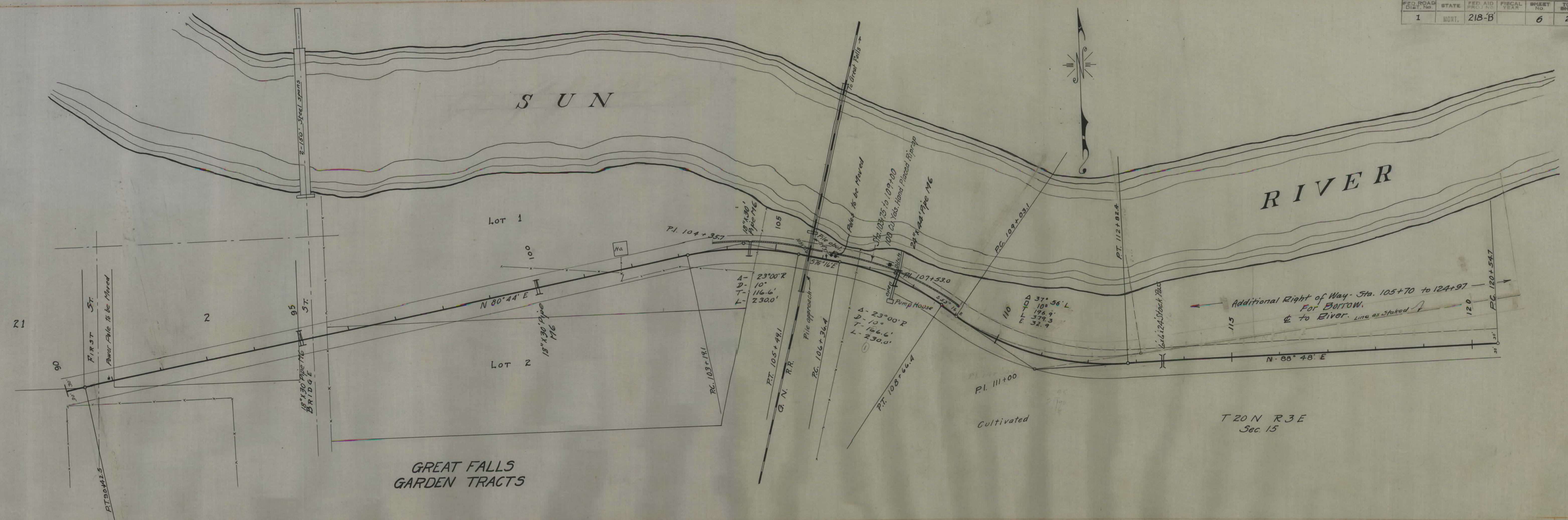
PLAN  
 2/11/27  
 T. LAC.



GREAT FALLS  
 UNIVERSITY ADD.



Profile  
 L.A.C.  
 8 Traced



F. 218-B

Traced C.B.G.

L.A.C. 5/17/37  
B.T.

Sta. 95+00  
18" x 30" Pipe M6  
B.M. Spike in Well  
Elev. 3311 - 30.8' 95160

Sta. 100+00  
18" x 30" Pipe M6

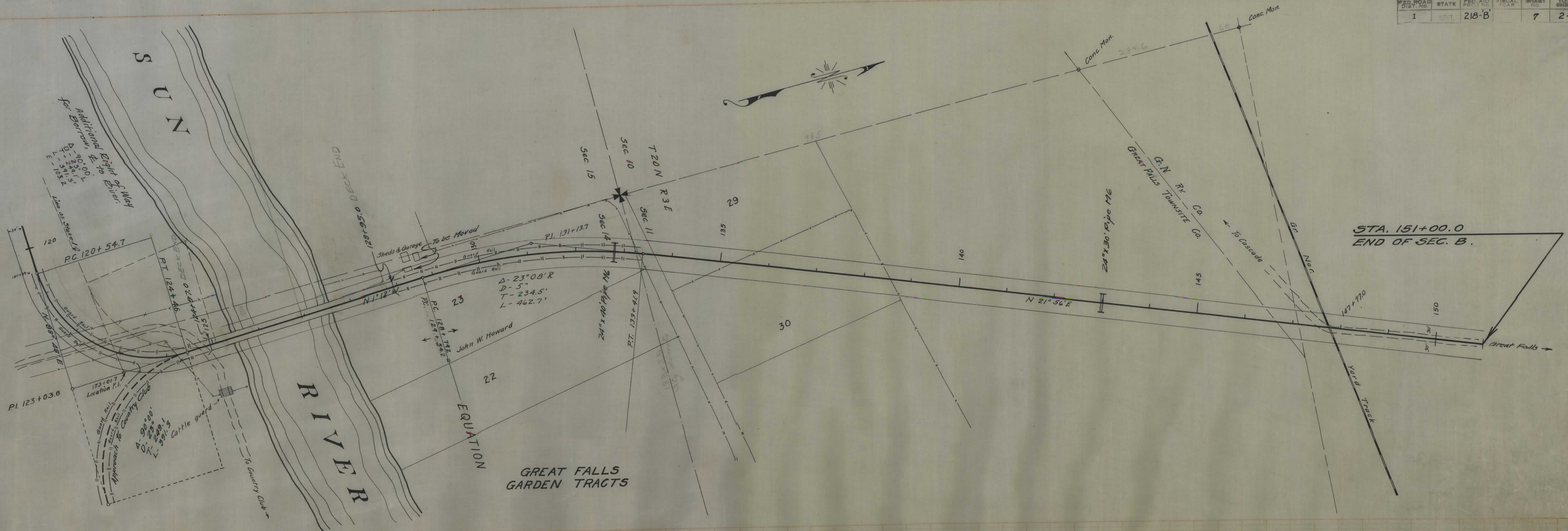
Sta. 104+33  
18" x 30" Pipe M6

B.M. Elev. 3302.29  
Spike in Well  
Elev. 3311 - 30.8' 95160

Sta. 107+60  
24" x 44" Pipe M6

Sta. 113+05  
Galvanized Steel Pipe

Traced C.B.G. 2/10/27



L.A.C. & T.E. 3/1/27

