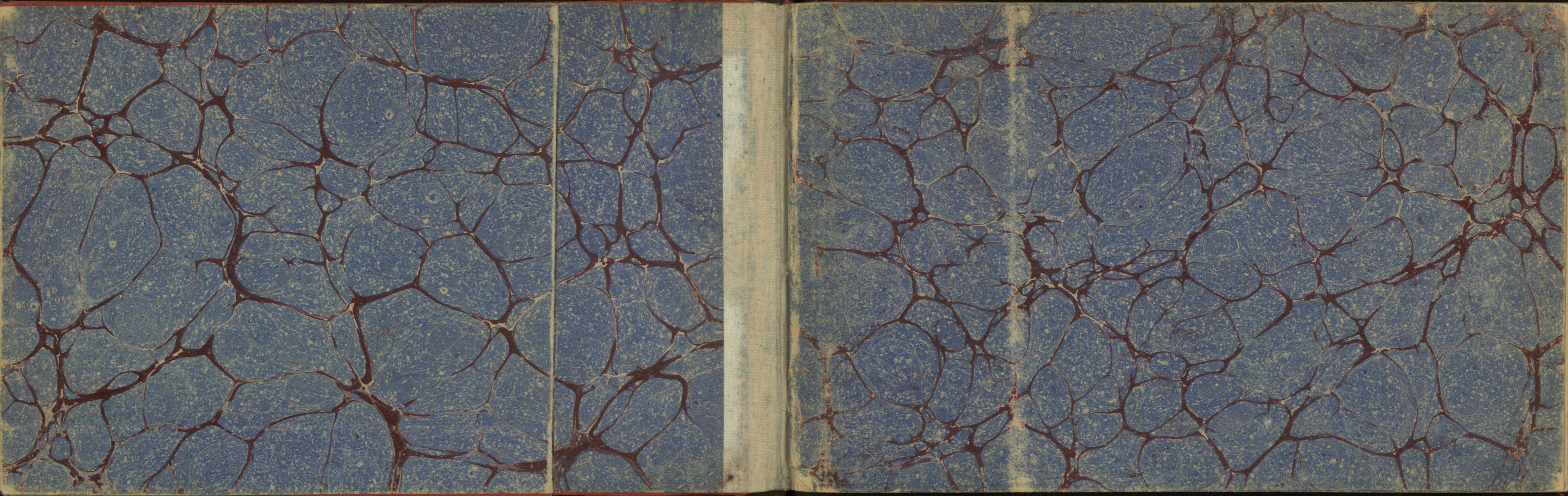


211

FIELDBOOK
A

H. A. DEPT.



FIELD NOTES OF SURVEYS

Temporary Railway

from the Luanbayan to the Federal City

Transmitted to the District Surveyor at _____

with my letter dated 30th Sept.

(Signature) Geo. Mansale

St 5770

92461

EXTRACT FROM DEPARTMENTAL SURVEY REGULATIONS.

FIELD NOTES OF SURVEY.

Field-books supplied by the Department shall be used.

As a general rule one field-book should be completed before another is commenced. Notes shall be entered consecutively according to dates of surveys. Within six months after completion of the book the index shall be filled in, and the book forwarded to the District Surveyor under registered post, accompanied by a letter. The inside cover of book to be endorsed "Field-notes of Surveys made by me between the _____ and the _____ Transmitted to the District Surveyor at _____ with my letter of the _____" (To be signed).

As the field-notes are the primary records of survey, are accepted as evidence in a Court of Law, and are for departmental reference, it is of importance that they should be precise and complete, indexed for purposes of ready reference, and kept in a neat and professional manner.

The diagram form of keeping field-notes is now generally adopted. Those Surveyors who have been accustomed to the old-fashioned form of record, and prefer it, should also provide a diagram in illustration. Field-notes should be so perspicuous that a qualified draftsman may be enabled to prepare plan therefrom without undue loss of time in investigation.

Field-books shall contain the notes actually taken in the field, not copies merely, and it is desirable that they shall be recorded in ink.

In the event of alteration of a mistake, there should be no erasure, but the erroneous entry should be neatly struck through, and the correction written above.

Date of survey, portion No., parish, county, applicant's name, and purpose of survey; registration Nos. (e.g., for conditional purchase, homestead lease, special lease, &c.), shall be first entered in each case; and the number and date of letter transmitting plan shall be added in due course.

The initial line of every survey, and azimuth adopted, shall be clearly indicated.

Bearings shall be clearly shown, with particulars of repetition of angles.

Lengths shall be entered as read, corrections for hypsometrical measurement and temperature shall be noted, and the lengths deduced therefrom shall be distinctly indicated.

Whenever there may be a close in the measurement of an area, or in a feature survey, or road survey, the closing angle shall be observed and noted.

References to corner trees may either be shown on diagram or in tabular form referred to in diagram by alphabetical letters.

Features shall be shown comprehensively, so that a draftsman may be enabled to represent the general aspect of the country.

On measured lines, the intersections of watercourses, summits of ranges, other natural features, fences, &c., &c., shall be correctly noted; lines reclaimed should be so specified. Position and state of preservation of old marks shall be carefully noted.

Intersections, offsets, and widths of watercourses shall be shown in the traverse of features. It is not sufficient to draw them without noting distances. The positions of improvements shall be clearly indicated; particulars of ownership, description, and value shall be entered, and also the dates when the improvements were effected.

Full particulars shall be stated as to the character of soil and timber, grazing or agricultural capabilities, and the geological formation of the country.

The Surveyor shall take such notes whilst in the field as will enable him in his letter transmitting the plan to report precisely in any case what natural boundaries or parts thereof might be exempted from the condition of fencing.

Notes shall be made of the estimated capital and rental values of land. These may be specially useful to the Surveyor when called upon to give evidence in Court. St 5770

Observations at 197^m 1332.30 on Existing Line.

Bg 236° 24' 22"

- to right -

235° 46.00	235° 45' 30"
45.00	
260° 26.00	260° 25' 30"
25.00	
285° 06.00	285° 5' 30"
05.00	
309° 46.00	309° 45' 30"
45.00	
334° 26.00	334° 25' 30"
25.00	

500 - 2° 48' } 499.40
 500 - 2° 45' } 499.42
 339.03 - Level } 339.03

Temp. 52° 1337.85

24° 40' 00"	} 24° 40' 00"
24° 40' 00"	
24° 40' 00"	
24° 40' 00"	

Bg - 261° 04' 22" } Fr to 1.
 Dist - 1337.85 }

Peg No 1.

334° 20.00	334° 20' 00"
20.00	
163° 44.00	163° 43' 30"
43.00	
173° 07.00	173° 7' 30"
7.00	
2° 32.00	2° 31' 30"
31.00	
11° 55.30	11° 55' 00"
54.30	

500 - 1° 35' - 499.81
 118.68 - Level } 118.68
 618.49

Temp. 54°

9° 23' 30"	} 9° 23' 45"
9° 24' 00"	
9° 24' 00"	
9° 23' 30"	

4/95
 23 45

Fr 270° 28' 07" } to 2
 618.49 }

On straight.

500 - 2° 30' - 499.52
 230.90 - Level } 230.90
 Temp. 52° 730.42

Peg No 2.

On straight. No 3
 500. Level

Fr 270° 28' 07" } to 3
 730.42 }

Fr 270° 28' 07" } to 4
 500 }

No 4 to Left.

20° 20.00	20° 19' 30"
19.00	
198° 31.00	198° 30' 30"
30.00	
16° 42.00	16° 41' 30"
41.00	
194° 53.00	194° 52' 30"
52.00	
13° 04.00	13° 3' 30"
03.00	

Temp. 52°

500 - 2° 13' - 499.62
 500 - 2° 20' } 499.58
 375.60 - Level } 375.60
 1374.80

178° 11' 00"	} 178° 11' 00"
178° 11' 00"	
178° 11' 00"	
178° 11' 00"	

Fr 268° 39' 07" } to 5
 1374.80 }

No 5 to Right

13° 20.00	13° 19' 30"
19.00	
186° 19.00	186° 18' 30"
18.00	
359° 18.00	359° 17' 30"
17.00	
172° 17.00	172° 16' 30"
16.00	
345° 16.00	345° 15' 30"
15.00	

172° 59' 00"	} 172° 59' 00"
172° 59' 00"	
172° 59' 00"	
172° 59' 00"	

500 - 3° 00' } 499.31
 547.33 - Level } 547.33
 1046.64

Fr 275° 40' 07" } to 6
 1046.64 }

Temp. 53°

352° 20.00	352° 19' 30"	176° 37' 00"
168° 57.00	168° 56' 30"	176° 37' 30"
345° 34.00	345° 34' 00"	176° 37' 30"
162° 12.00	162° 11' 30"	176° 37' 30"
338° 49.00	338° 49' 00"	

500 - 3° 43' 498.94
 500 - 2° 17' 499.60
 85.25 Level. 85.25
 Temp. 54° 1083.87

Ft 272° 17' 29" }
 1083.87 } t 7

N^o 7 to Right.

338° 20.00	338° 20' 00"	177° 19' 30"
155° 40.30	155° 39' 30"	177° 19' 00"
332° 59.00	332° 58' 30"	177° 19' 00"
50° 18.00	50° 17' 30"	177° 18' 30"
327° 36.00	327° 36' 00"	

100 Level 100.00
 500 - 3° 10' 499.23
 741.95 Level 741.95
 Temp. 56° .04

Ft 274° 58' 29" }
 1341.22 } t 8.

N^o 8 to Left.

330° 20.00	330° 19' 30"	175° 21' 30"
145° 42.00	145° 41' 00"	175° 21' 00"
321° 02.00	321° 2' 00"	175° 21' 00"
136° 24.00	136° 23' 00"	175° 21' 00"
311° 44.00	311° 44' 00"	

1763.20 Level.
 Temp. 57°

Ft 270° 19' 36" }
 1763.25 } t 9.

N^o 9 to Right.

311° 40.00	311° 39' 30"	172° 32' 00"
124° 12.00	124° 11' 30"	172° 32' 00"
296° 44.00	296° 43' 30"	172° 32' 00"
109° 16.00	109° 15' 30"	172° 31' 30"
281° 47.00	281° 47' 00"	

1396.75 Level
 Temp. 58°

Ft 277° 47' 46" }
 1396.80 } t 10

N^o 10 to Right.

281° 40.00	281° 39' 30"	161° 1' 00"
82° 41.00	82° 40' 30"	161° 1' 00"
243° 43.00	243° 42' 30"	161° 1' 30"
44° 44.00	44° 44' 00"	161° 1' 30"
205° 46.00	205° 45' 30"	

Ft 296° 46' 31" }
 1943.30 to Intermediate }
 2904.10 to TP on }
 Queenbeyan-City Line }
 at 199^m 289.35 }

Obs. T.P. 199^m 2289.35 on Queenbejan - City Line.

34°	$\frac{20.00}{19.00}$	34° 19' 30"
173°	$\frac{53.00}{52.00}$	173° 52' 30"
213°	$\frac{25.00}{25.00}$	213° 25' 00"
92°	$\frac{59.00}{57.00}$	92° 58' 00"
232°	$\frac{31.00}{31.00}$	232° 31' 30"

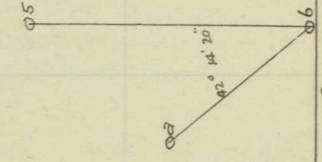
139° 33' 00"	}	139° 33' 00"
139° 32' 30"		
139° 33' 00"		
139° 33' 30"		

$120^\circ \frac{20.00}{18.00}$ $120^\circ 19' 00''$
 $162^\circ \frac{34.00}{38.00}$ $162^\circ 33' 30''$
 $204^\circ \frac{48.00}{47.00}$ $204^\circ 47' 30''$
 $247^\circ \frac{3.30}{2.00}$ $247^\circ 2' 45''$
 $289^\circ \frac{17.00}{17.00}$ $289^\circ 17' 00''$
 $331^\circ \frac{32.00}{31.00}$ $331^\circ 31' 30''$
 $13^\circ \frac{46.00}{45.00}$ $13^\circ 45' 30''$

$42^\circ 14' 30''$
 $42^\circ 14' 00''$
 $42^\circ 15' 15''$
 $42^\circ 14' 15''$
 $42^\circ 14' 30''$
 $42^\circ 14' 00''$

$500 - 2^\circ 12' - 499.63$
 $500 - 0^\circ 40' - 499.96$
 $500 - \text{Level } 500$
 $132.30 \quad \frac{132.30}{1631.89}$

$F: 233^\circ 25' 47''$
 $\frac{1631.89}{1631.89} \text{ to } d$



Peg a (to Left)

$331^\circ \frac{20.00}{19.00}$ $331^\circ 19' 30''$
 $141^\circ \frac{16.30}{14.00}$ $141^\circ 15' 15''$
 $311^\circ \frac{12.00}{12.00}$ $311^\circ 12' 00''$
 $121^\circ \frac{10.00}{8.00}$ $121^\circ 9' 00''$
 $291^\circ \frac{5.00}{4.00}$ $291^\circ 4' 30''$
 $101^\circ \frac{1.00}{0.00}$ $101^\circ 0' 30''$

$169^\circ 56' 15''$
 $169^\circ 56' 45''$
 $169^\circ 57' 00''$
 $169^\circ 55' 30''$
 $169^\circ 56' 00''$

$500 - 2^\circ 26' \quad 499.54$
 $500 - 0^\circ 13' \quad 500$
 $100 - 6^\circ 34' \quad 99.34$
 $109.90 \text{ Level} \quad \frac{109.90}{1208.78}$

$F: 223^\circ 22' 05''$
 $\frac{1208.78}{1208.78} \text{ to } b$

Peg b (to right)

$101^\circ \frac{20.00}{19.00}$ $101^\circ 19' 30''$
 $257^\circ \frac{1.30}{0.30}$ $257^\circ 1' 00''$
 $52^\circ \frac{43.00}{42.00}$ $52^\circ 42' 30''$
 $208^\circ \frac{24.00}{23.00}$ $208^\circ 23' 30''$
 $4^\circ \frac{5.30}{4.30}$ $4^\circ 5' 00''$

$155^\circ 41' 30''$
 $155^\circ 41' 30''$
 $155^\circ 41' 00''$
 $155^\circ 41' 30''$

$500 - 0^\circ 20' \quad 499.54$
 $500 - \text{Level} \quad 500$
 $206.85 \text{ Level} \quad \frac{206.85}{1206.84}$

$F: 247^\circ 40' 43''$
 $\frac{1206.84}{1206.84} \text{ to } c$

C (on straight)

$500 - \text{Level} \quad 500$
 $500 - 0^\circ 28' \quad 499.54$
 $66.55 \text{ Level} \quad \frac{66.55}{1066.54}$

$F: 247^\circ 40' 43''$
 $\frac{1066.54}{1066.54} \text{ to } d$

d (to right)

$318^\circ \frac{20.00}{19.00}$ $318^\circ 19' 30''$
 $102^\circ \frac{17.30}{16.00}$ $102^\circ 16' 45''$
 $246^\circ \frac{15.00}{14.00}$ $246^\circ 14' 30''$
 $30^\circ \frac{12.00}{11.00}$ $30^\circ 11' 30''$
 $174^\circ \frac{10.00}{8.00}$ $174^\circ 9' 00''$

$143^\circ 57' 15''$
 $143^\circ 57' 45''$
 $143^\circ 57' 00''$
 $143^\circ 57' 30''$

$500 \text{ Level} - 500$
 $500 - 1^\circ 33' \quad 499.81$
 $500 - 0^\circ 35' \quad 499.97$
 $500 - 1^\circ 23' \quad 499.85$
 $287.40 \text{ Level} \quad \frac{287.40}{2287.03}$

$F: 283^\circ 43' 21''$
 $\frac{2287.03}{2287.03} \text{ to } e$

$110 \frac{20.00}{18.00}$ 110° $19' 00''$
 $278 \frac{33.00}{32.00}$ 278° $32' 30''$
 $86 \frac{47.00}{46.00}$ 86° $46' 30''$
 $255 \frac{1.00}{00.00}$ 255° $0' 30''$
 $63 \frac{14.00}{13.00}$ 63° $13' 30''$

$500 - 1^\circ 38'$ - 499.79
 $500 - 3^\circ 15'$ 499.19
 $500 - \text{Level}$ 500.00
 $500 - 1^\circ 20'$ 499.86
 $93.98 - \text{Level}$ 93.98
 2092.82

$168^\circ 13' 30''$
 $168^\circ 14' 00''$
 $168^\circ 14' 00''$
 $168^\circ 13' 00''$
 $4 \begin{array}{r} 54 \\ 13 \end{array} \begin{array}{r} 30 \\ 37 \end{array}$

$Ft. 271^\circ 56' 58''$ } to Int?
 2092.82

to Intersection Existing Line. (R. Road)

Observations at Intersection.

$349^\circ \frac{20.00}{19.00}$ $349^\circ 19' 30''$
 $24^\circ \frac{53.00}{52.00}$ $24^\circ 52' 30''$
 $60^\circ \frac{25.00}{24.00}$ $60^\circ 24' 30''$
 $95^\circ \frac{59.00}{58.00}$ $95^\circ 58' 30''$
 $131^\circ \frac{32.00}{31.00}$ $131^\circ 31' 30''$
 $167^\circ \frac{5.00}{4.00}$ $167^\circ 4' 30''$

$35^\circ 33' 00''$
 $35^\circ 32' 00''$
 $35^\circ 34' 00''$
 $35^\circ 33' 00''$
 $35^\circ 33' 00''$
 $35^\circ 33' 00''$

Bg. of Existing Line by Close

= $236^\circ 23' 58''$

45° 20.00
180° 7.00
314° 53.00
89° 39.30
224° 26.00

45° 19' 30"
180° 6' 30"
314° 53' 00"
89° 39' 00"
224° 25' 30"

134° 47' 00"
134° 46' 30"
134° 46' 00"
134° 46' 30"
134° 46' 30"

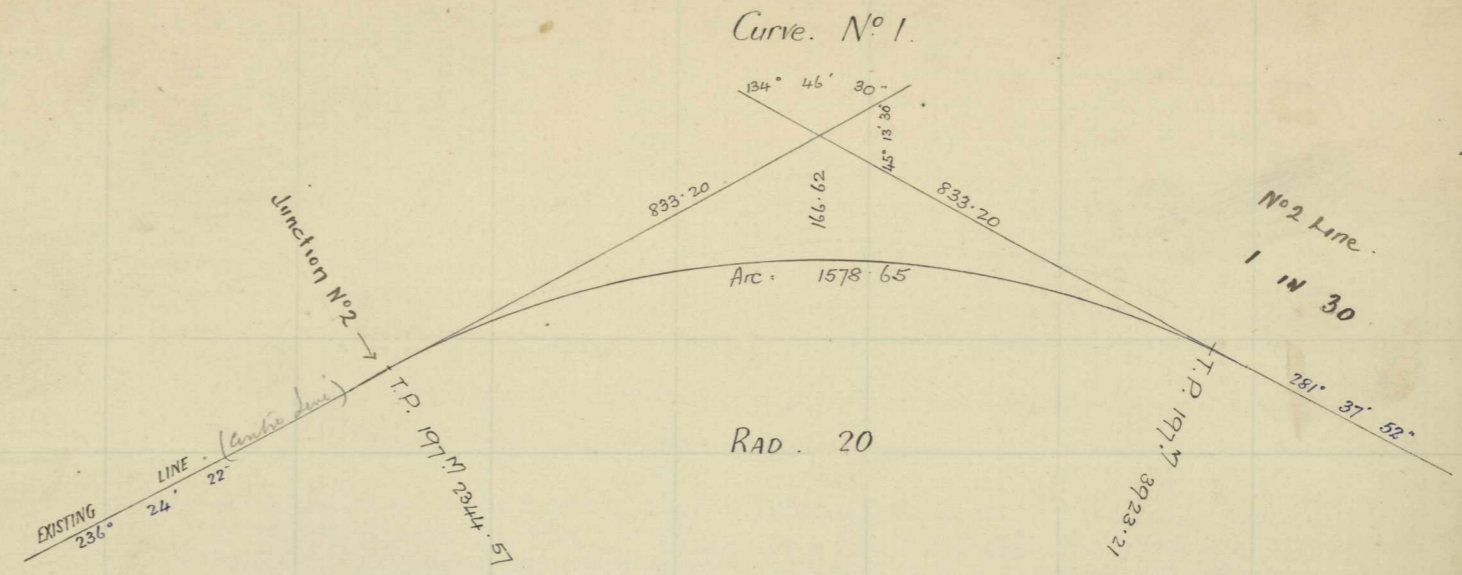
45° 13' 30"

Def. Angle. 45° 13' 30"

0°	47.64	-	24
1°	25.95		
2°	13.59	-	25
1°	25.95		
3°	39.54	-	26
1°	25.95		
5°	05.49	-	27
1°	25.95		
6°	31.44	-	28
1°	25.95		
7°	57.39	-	29
1°	25.95		
9°	23.34	-	30
1°	25.95		
10°	49.29	-	31
1°	25.95		
12°	15.24	-	32
1°	25.95		
13°	41.19	-	33
1°	25.95		
15°	07.14	-	34
1°	25.95		
16°	33.09	-	35
1°	25.95		
17°	59.04	-	36
1°	25.95		
19°	24.99	-	37
1°	25.95		
20°	50.94	-	38
1°	25.95		
22°	16.89	-	39
0°	19.95		
220	36.84	=	TP

Tan = 833.20
Sec = 166.62
Arc = 1578.65

TP. 197.2344.57
789.32
3133.89
789.32
TP. 197.3923.21

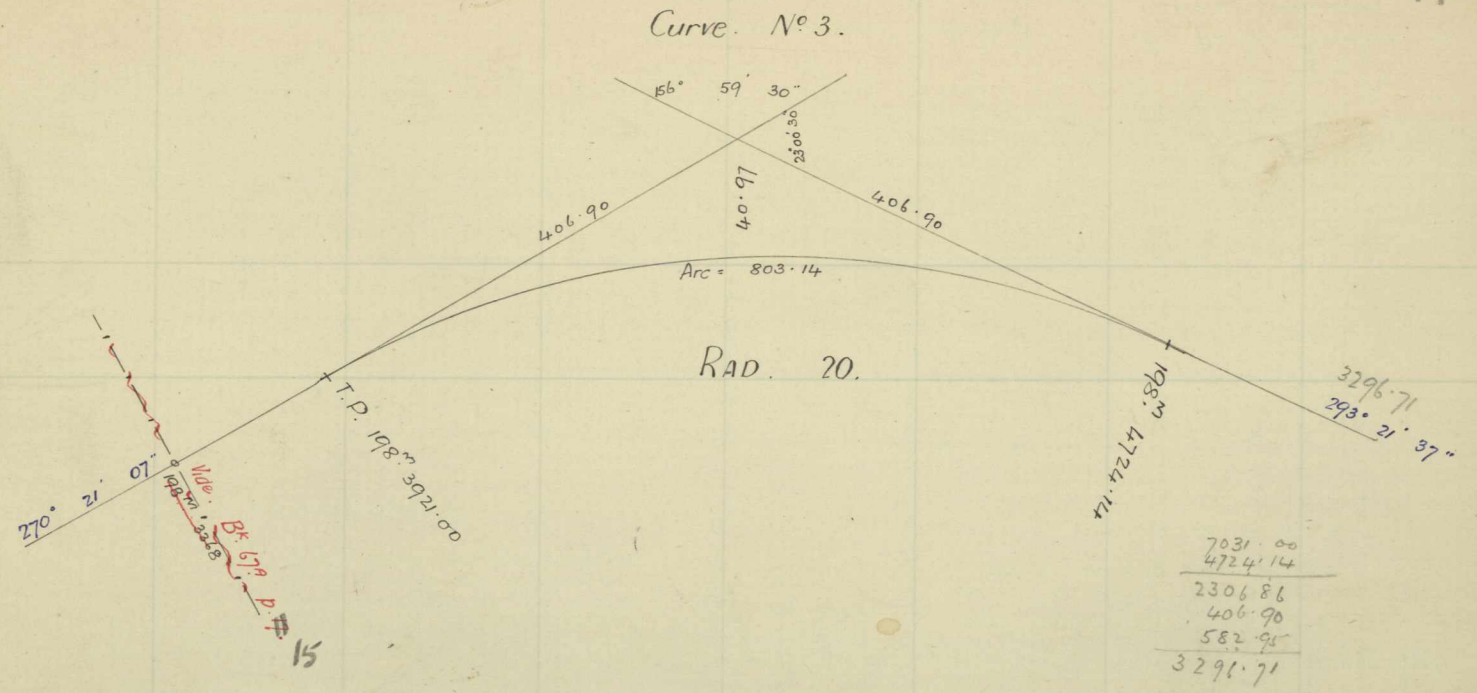


79 11.31
39 23.21
39 88.14
833.20
39 5.00
5211.41

$348^{\circ} \frac{20.00}{19.00}$	$348^{\circ} 19' 30''$	$156^{\circ} 59' 45''$	} $186^{\circ} 59' 30''$
$145^{\circ} \frac{20.00}{18.30}$	$145^{\circ} 19' 15''$	$156^{\circ} 59' 30''$	
$302^{\circ} \frac{19.00}{18.30}$	$302^{\circ} 18' 45''$	$156^{\circ} 59' 45''$	
$99^{\circ} \frac{19.00}{18.00}$	$99^{\circ} 18' 30''$	$156^{\circ} 59' 00''$	
$256^{\circ} \frac{18.00}{17.00}$	$256^{\circ} 17' 30''$		

Req. of Curve at 198^m 39.21.00
 $\frac{401.57}{4322.57}$
 Sec = 40.97
 $\frac{401.57}{4724.14}$
 End. 4724.14

Tan. = 406.90
 Sec = 40.97
 Arc = 803.14



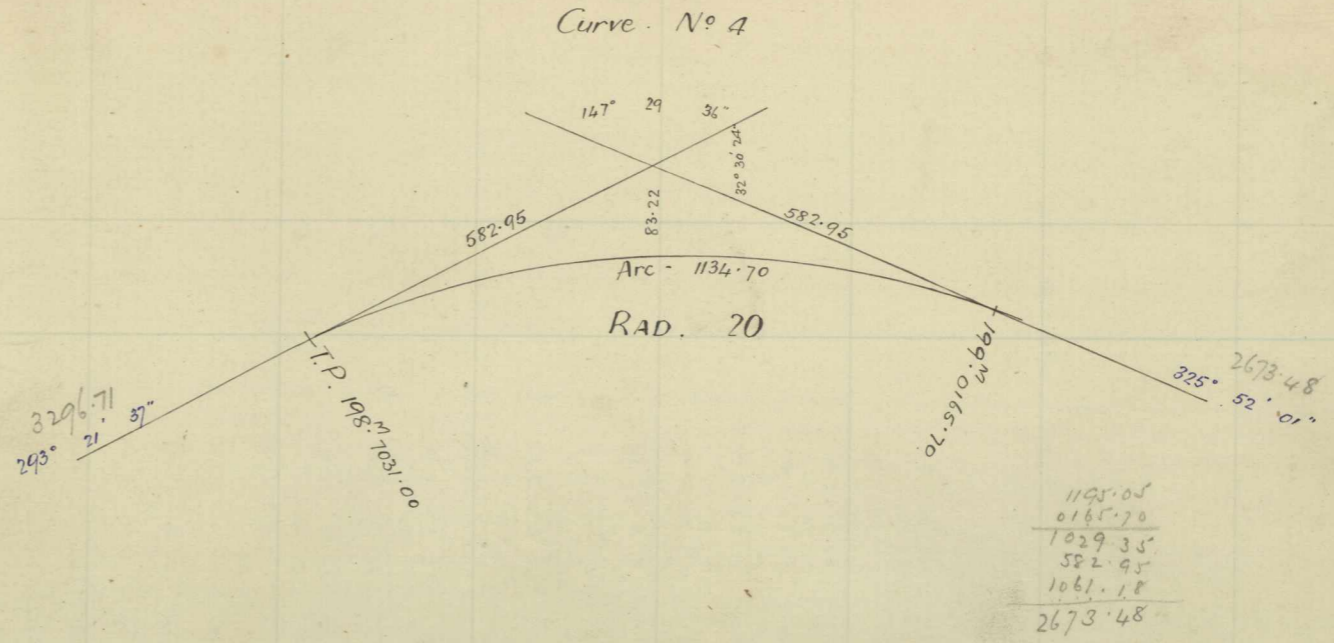
10°	20.00	10°	19' 30"
42°	50.00	42°	49' 30"
190°	20.00	190°	19' 30"
337°	51.00	337°	50' 30"
125°	22.00	125°	21' 00"
272°	52.00	272°	51' 30"

32°	30' 00"	} 32° 30' 24"
32°	30' 00"	
32°	31' 00"	
32°	30' 30"	
32°	30' 30"	

Tan = 582.95
 Sec = 83.22
 Arc = 1134.70

T.P. 198M 7031.00
 Sec - 7598.35
 T.Pend-199i 0163.70

0°	59.31 = 74 ✓
1°	25.95 ✓
2°	25.28 = 78 ✓
1°	25.95 ✓
3°	51.21 = 73 ✓
1°	25.95 ✓
5°	17.16 = 74 ✓
1°	25.95 ✓
6°	43.11 = 75 ✓
1°	25.95 ✓
8°	09.06 = 76 ✓
1°	25.95 ✓
9°	35.01 = 77 ✓
1°	25.95 ✓
11°	00.96 = 78 ✓
1°	25.95 ✓
12°	26.91 = 79 ✓
1°	25.95 ✓
13°	52.86 = 199M ✓
1°	25.95 ✓
15°	18.81 = 1 ✓



1195.05
 0163.70
 1029.35
 582.95
 1061.18
 2673.48

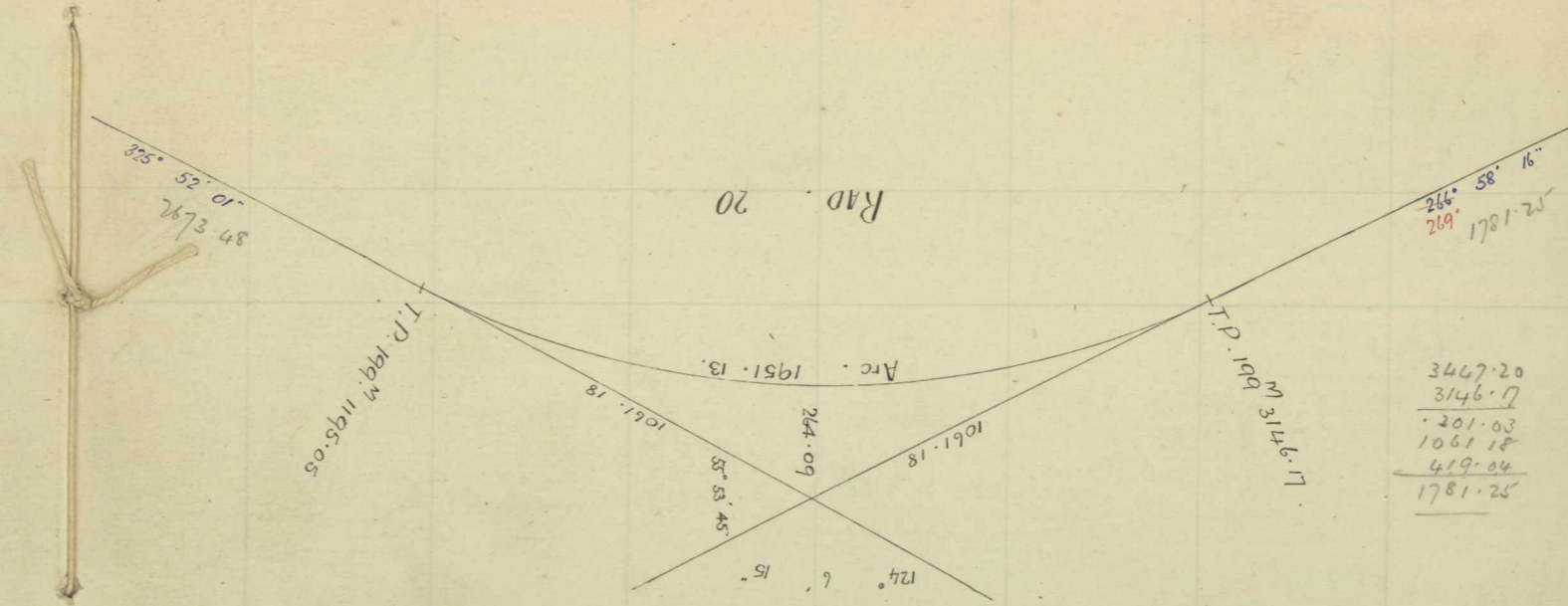
55°	53.00	55°	52' 30"	} 124° 6' 30"
58°	52.00	59°	00"	
60°	58.00	5'	00"	
68°	06.00	11'	00"	
192°	18.00	17'	30"	
	10.30			124° 6' 00"
				124° 6' 30"

Def = 55° 53' 45"

359°	55.65 = 12.
1°	25.95
358°	29.70 = 13
1°	25.95
357°	03.75 = 14
1°	25.95
356°	37.80 = 15
1°	25.95
354°	11.85 = 16
1°	25.95
352°	45.90 = 17
1°	25.95
351°	19.95 = 18
1°	25.95
349°	54.00 = 19
1°	25.95
348°	28.05 = 20
1°	25.95
347°	02.10 = 21
1°	25.95
345°	36.25 = 22
1°	25.95
344°	10.20 = 23
1°	25.95
342°	44.25 = 24
1°	25.95
341°	18.30 = 25
1°	25.95
339°	52.35 = 26
1°	25.95
338°	26.40 = 27
1°	25.95
337°	00.45 = 28
1°	25.95
335°	34.50 = 29
1°	25.95
334°	08.55 = 30
1°	25.95
332°	42.60 = 31

Tan = 1061.18
Sec = 264.09
Arc = 1951.13

T.P. 199^m 1195.05
975.56
Sec - 2170.61
975.56
T.P. - 3146.17



346.20
7.94 ^m
201.03
1061.18
419.04
<u>1781.25</u>

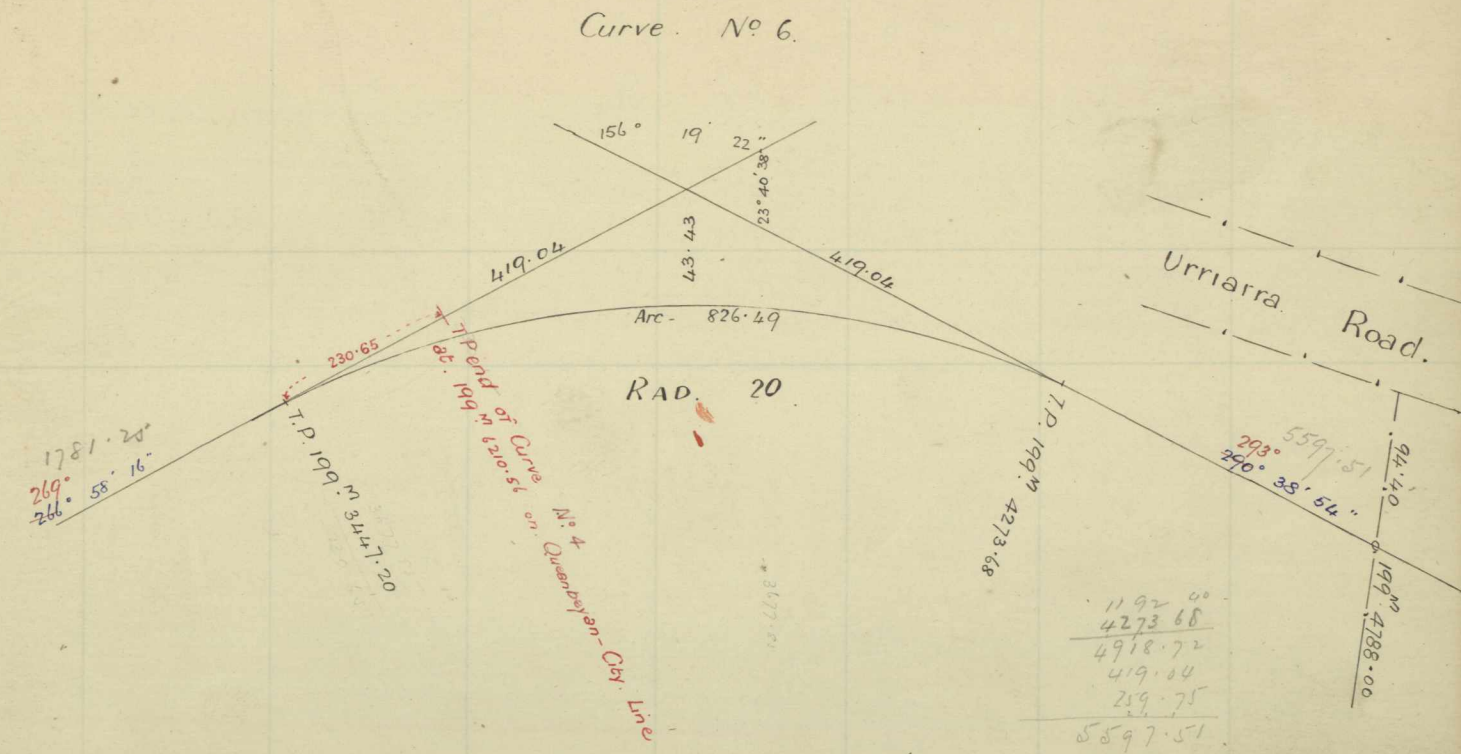
336°	20.00	336°	19' 30"	} 156° 19' 45"
192°	40.00	192°	39' 15"	
788°	59.00	788°	58' 30"	
85°	19.00	85°	18' 30"	
741°	39.00	741°	38' 00"	} 156° 19' 30"
	37.00			

Def. 23° 40' 38"

Tan - 419.04
 Sec - 43.43
 Arc - 826.49

0°	45.38	- 35 ✓
1°	25.95	- 36 ✓
2°	11.33	- 36 ✓
3°	25.95	- 37 ✓
4°	37.28	- 37 ✓
5°	25.95	- 38 ✓
6°	03.23	- 38 ✓
7°	25.95	- 39 ✓
8°	29.78	- 39 ✓
9°	20.95	- 40 ✓
10°	55.13	- 40 ✓
11°	25.95	- 41 ✓
12°	21.08	- 41 ✓
13°	25.95	- 42 ✓
14°	47.03	- 42 ✓

T.P. 199^M 3447.20
 Sec. 413.24
 T.P. 199^M 4273.68



1192.00
 4273.68
 4918.72
 419.04
 259.75
 5597.51

50°	19.00	50°	19' 30"
215°	32.00	215°	31' 15"
20°	43.00	20°	42' 30"
185°	56.00	185°	55' 30"
351°	7.00	351°	6' 30"
156°	19.00	156°	18' 30"

165°	11' 45"	} 165° 11' 30"
165°	11' 15"	
165°	11' 00"	
165°	12' 00"	

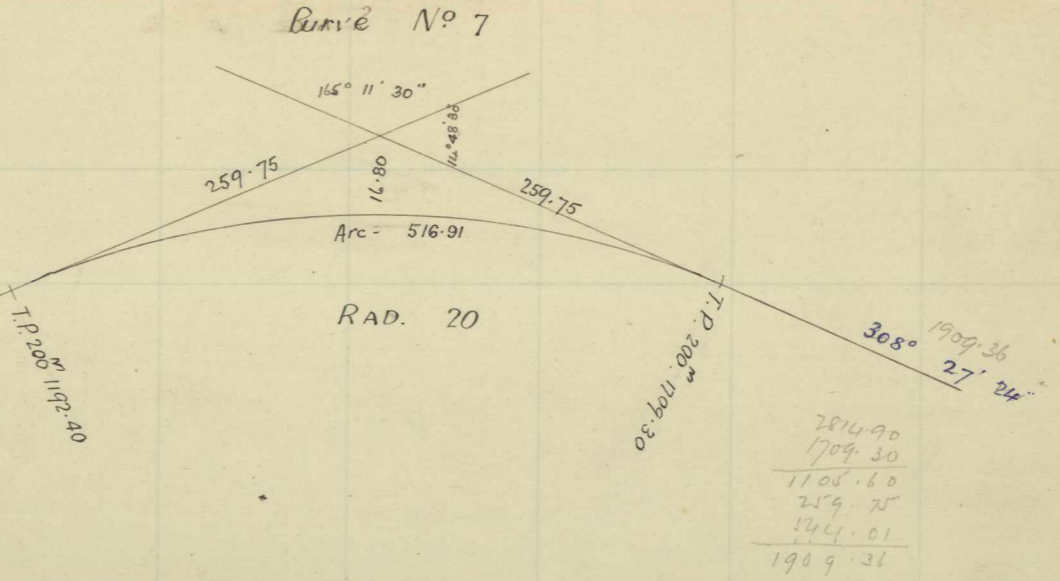
Def = 14° 48' 30"

Tan = 259.75
 Sec = 16.80
 Arc = 516.91

T.P. = 200^M 1192.40
 $\frac{258.45}{1450.85}$
 T.P. = 200 1709.30

0'	6.53 - 12
1'	25.95
1"	32.48 - 13
1'	25.95
2"	68.43 = 14
1'	25.95
4"	24.38 = 15
1'	25.95
5"	50.33 = 16
1'	25.95
7"	16.28 = 17

293° 38' 54" 5897.57



2814.90
 1709.30
 1105.60
 259.75
 1909.36

$237^{\circ} \frac{57.30}{57.00}$ 237° $51'$ $45''$
 $27^{\circ} \frac{25.20}{24.40}$ 27° $25'$ $00''$
 $136^{\circ} \frac{59.00}{57.30}$ 136° $58'$ $15''$
 $326^{\circ} \frac{32.00}{32.00}$ 326° $32'$ $00''$
 $116^{\circ} \frac{6.00}{6.00}$ 116° $5'$ $00''$

$149^{\circ} 33' 15''$
 $149^{\circ} 33' 15''$
 $149^{\circ} 33' 45''$
 $149^{\circ} 33' 00''$

$\left. \begin{array}{l} 149^{\circ} 33' 15'' \\ 149^{\circ} 33' 45'' \\ 149^{\circ} 33' 00'' \end{array} \right\} 149^{\circ} 33' 19''$

Def: $30^{\circ} 26' 41''$

Tan - 544.01

Sec - 72.67

Arc - 1062.72

358°	46.85	= 29
1°	25.95	= 30
1°	25.95	= 31
358°	54.95	= 31
1°	25.95	= 32
1°	25.95	= 33
357°	37.10	= 34
1°	25.95	= 35
1°	25.95	= 36
347°	17.20	= 37
1°	25.95	= 38

T.P. 200^M 2814.90
Sec - 531.36
TP - 8877.62

$308^{\circ} 27' 24''$
1909.36

200^M 2814.90

544.01

RAD: 20.
149° 33' 19"

Curve No. 8

1062.72

544.01

2334.38
488.69
344.01
1321.46
27.67
544.01

T.P. 200^M 2814.90

$278^{\circ} 00'$ $43''$ $43''$
2334.38

112.60
 $205^{\circ} 15'$ $17''$
Wide

309°	$\frac{46.00}{45.00}$	309°	45'	30"	162°	13'	30"
112°	$\frac{00}{587}$	111°	59'	00"	162°	13'	30"
274°	$\frac{23.00}{22.00}$	274°	22'	30"	162°	13'	15"
76°	$\frac{36.30}{35.00}$	76°	35'	45"	162°	13'	15"
238°	$\frac{50.00}{48.00}$	238°	49'	00"	162°	13'	15"

Tan - 468.89
 Sec - 36.42
 Arc - 930.81

T.P. = 200^m 5199.10
 $\frac{465.40}{5664.50}$
 T.P. 200^m 6129.90

0°	0.57 - 52
0°	$\frac{57.30}{57.87}$ - 53
1°	$\frac{57.30}{55.17}$ - 54
2°	$\frac{57.30}{52.47}$ - 55
3°	$\frac{57.30}{49.77}$ - 56
4°	$\frac{57.30}{47.07}$ - 57
5°	$\frac{57.30}{44.37}$ - 58
6°	$\frac{57.30}{41.67}$ - 59
7°	$\frac{57.30}{38.97}$ - 60
8°	$\frac{57.30}{36.27}$ - 61

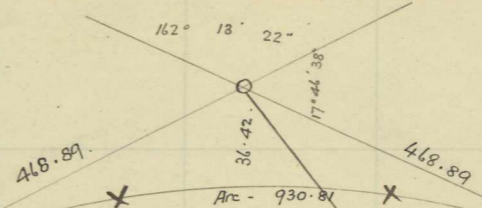
2334.38
 275° 00' 43"

200.5112.50

200.5199.10

(adopted line)
 RAD. 30
 R. 20
 See Book 498
 Page 3.

Curve No 9



200.6196.20

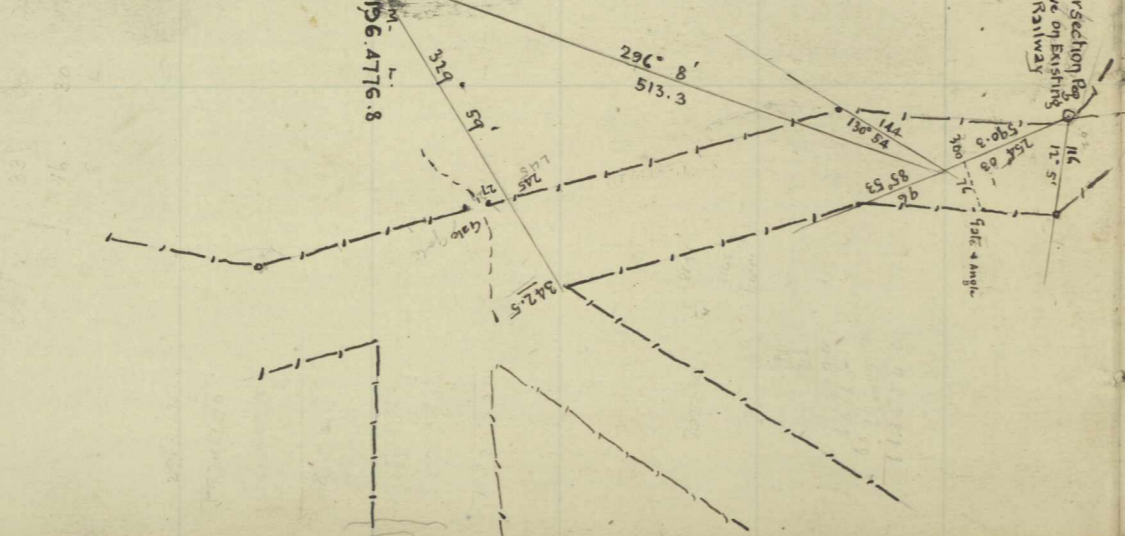
295° 47' 21"
 Canceled

Urmasa Rd

1212.60
 208' 15"
 301^m 6110.20

5.8.12.6
5.0.11.1
8.0.1

EXISTING LINE. $273^{\circ} 32' 30''$
M.L. 196.4776.8



Intersection Pt. on Existing Railway

Road (Not Formed)

Observations. Curve No. 1.

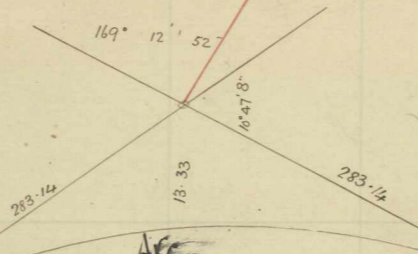
$179^{\circ} 31' 30''$	30°	$169^{\circ} 13' 00''$
$343^{\circ} 44' 20''$	$151^{\circ} 15' 20''$	$169^{\circ} 13' 00''$
$157^{\circ} 10' 00''$	$327^{\circ} 10' 00''$	$169^{\circ} 12' 30''$
$136^{\circ} 23' 00''$	$136^{\circ} 23' 00''$	$169^{\circ} 13' 00''$

Def = $10^{\circ} 47' 8''$

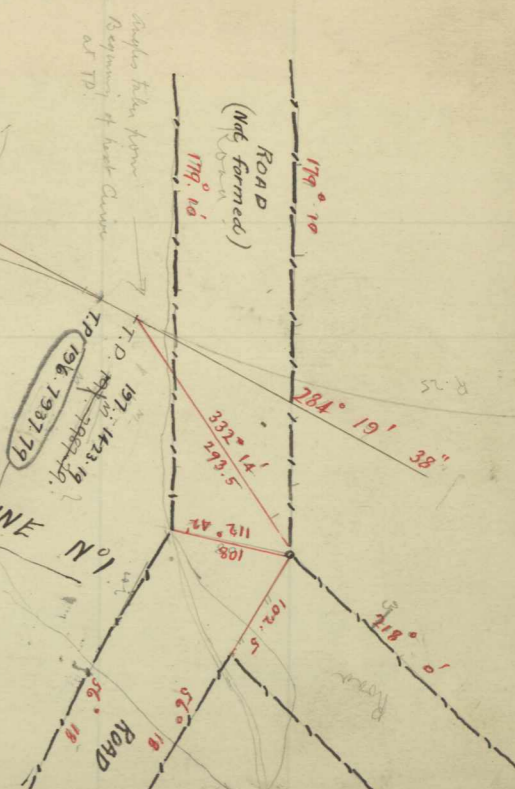
T.P. 196.7423.07
RAD. 30
T.P. 196.7927.79

Curve No. 1

TRANSVERSE P.C.E
 $258^{\circ} 3' 20''$
 203.52



ALTERNATE LINE No. 1
to be adopted Jan 1987.79



90° 20' 00"	90° 19' 30"
209° 39' 30"	209° 38' 45"
328° 58' 00"	328° 58' 30"
88° 18' 00"	88° 17' 30"
207° 37' 00"	207° 36' 30"

119° 19' 15"	} 119° 19' 15"
119° 19' 15"	
119° 19' 00"	
119° 19' 00"	

Def. = 60' 40" 45"

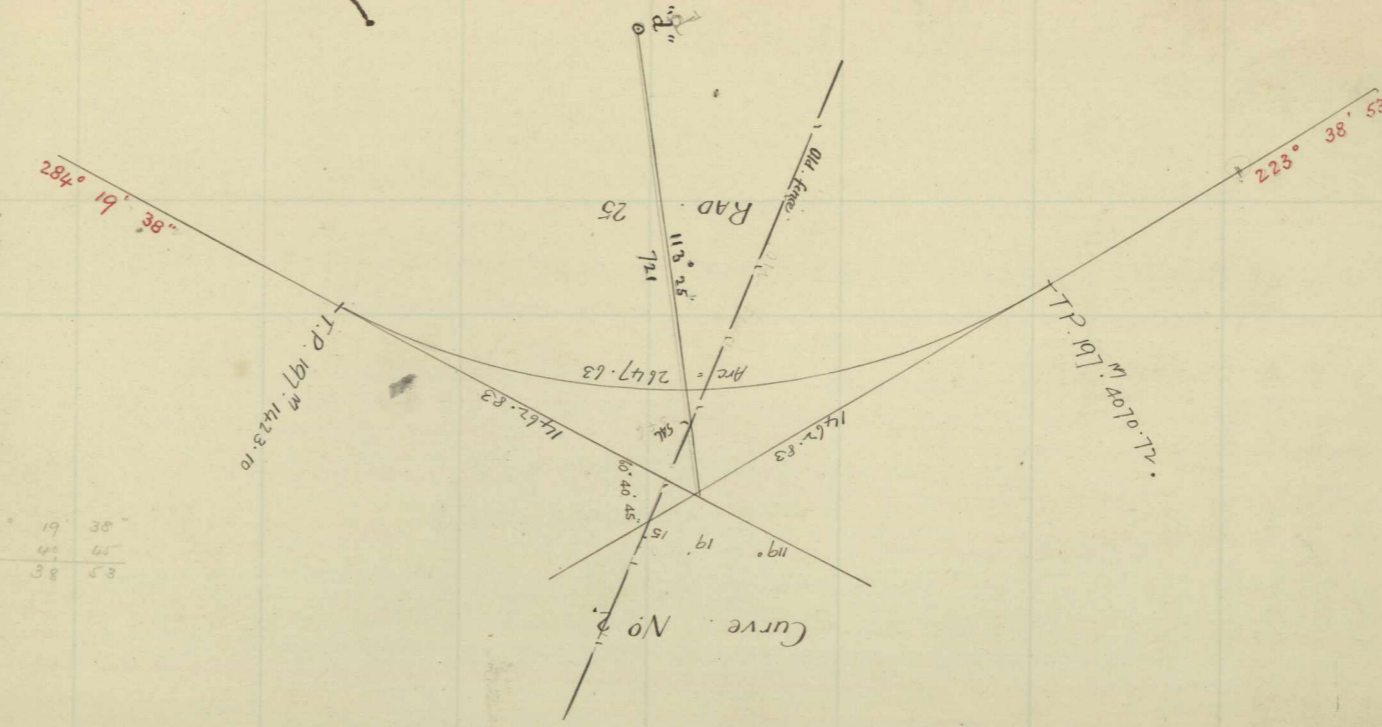
Tan = 1462.83
 Sec = 396.53
 Arc = 2647.63

360° 00'	52.88	18
359° 1' 12"	7.12	19
357° 58' 36"	8.76	20
356° 49' 60"	8.76	21
355° 40' 84"	8.76	22
354° 32' 08"	8.76	23
353° 23' 32"	8.76	24
352° 14' 56"	8.76	25
351° 5' 80"	8.76	26
349° 57' 04"	8.76	27
348° 48' 28"	8.76	28
347° 39' 52"	8.76	29
346° 30' 76"	8.76	30
345° 22' 00"	8.76	31
344° 13' 24"	8.76	32
343° 4' 48"	8.76	33
341° 55' 72"	8.76	34
340° 46' 96"	8.76	35
339° 38' 20"	8.76	36
338° 29' 44"	8.76	37

338° 1'	29.44 = 33
337° 1'	8.76
336° 1'	20.68 = 34
335° 1'	8.76
334° 1'	11.92 = 35
333° 1'	8.76
332° 1'	33.16 = 36
331° 1'	8.76
330° 1'	54.32 = 37
329° 1'	8.76
328° 1'	45.56 = 38
327° 1'	8.76
326° 1'	36.80 = 39
325° 1'	8.76
324° 1'	28.04 = 40
323° 1'	48.61
322° 1'	39.45 = T.P.
321° 1'	20.24
320° 1'	19.00

T.P. 1978 M 1423.10
 Sec - 2746.91
 T.P. end - 4070.72

283	19	38
284	40	39
285	50	40



50 84
40 71

1463
10 17
323
2803

2295
471
1802

20A

150°	$\frac{39.00}{38.00}$	150°	38' 30"
332°	$\frac{19.00}{17.30}$	332°	15' 15"
313°	$\frac{57.30}{57.30}$	313°	57' 30"
115°	$\frac{38.00}{36.00}$	115°	37' 00"
277°	$\frac{17.00}{16.00}$	277°	11' 30"

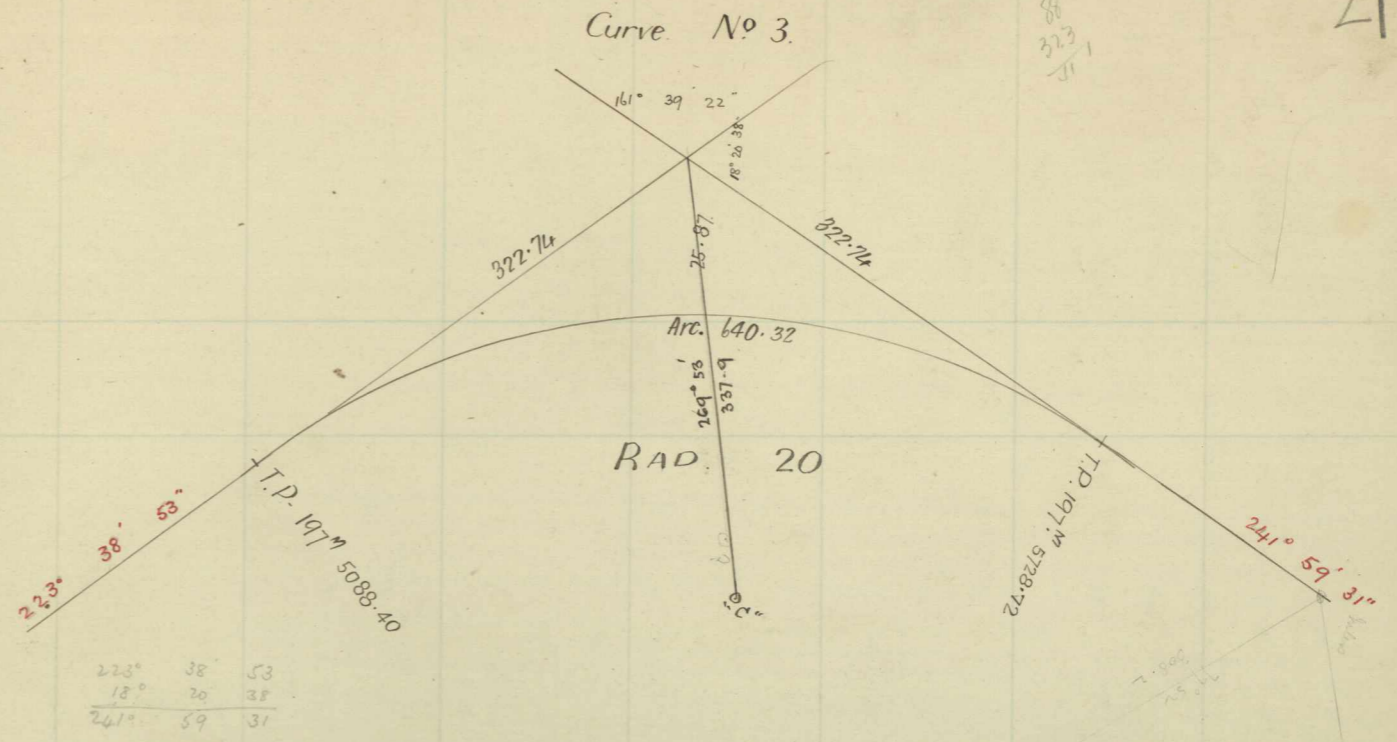
Def. Angle = 18° 20' 38"

Tan: 322.74
 Sec - 25.87
 Arc. - 640.32

T.P. 197^m 5088.40
 Sec. $\frac{5408.56}{320.16}$
 T Pend - 5728.72

0°	9.97	- 51
1°	25.95	
1°	35.92	- 52
1°	25.95	
3°	01.87	- 53
1°	25.95	
4°	27.82	- 54
1°	25.95	
5°	53.77	- 55
1°	25.95	
7°	19.72	- 58
1°	25.95	
8°	45.67	- 57

161° 39' 15"
 161° 39' 15"
 161° 39' 30"
 161° 39' 30"
 111° 39' 22"



223°	38'	53"
18°	20'	38"
261°	59'	31"

$8^{\circ} \frac{30.00}{19.00}$ $8^{\circ} 19' 30''$
 $155^{\circ} \frac{30.00}{18.00}$ $155^{\circ} 19' 00''$
 $302^{\circ} \frac{19.00}{19.00}$ $302^{\circ} 19' 00''$
 $89^{\circ} \frac{19.00}{17.30}$ $89^{\circ} 18' 15''$
 $236^{\circ} \frac{19.00}{17.00}$ $236^{\circ} 18' 00''$

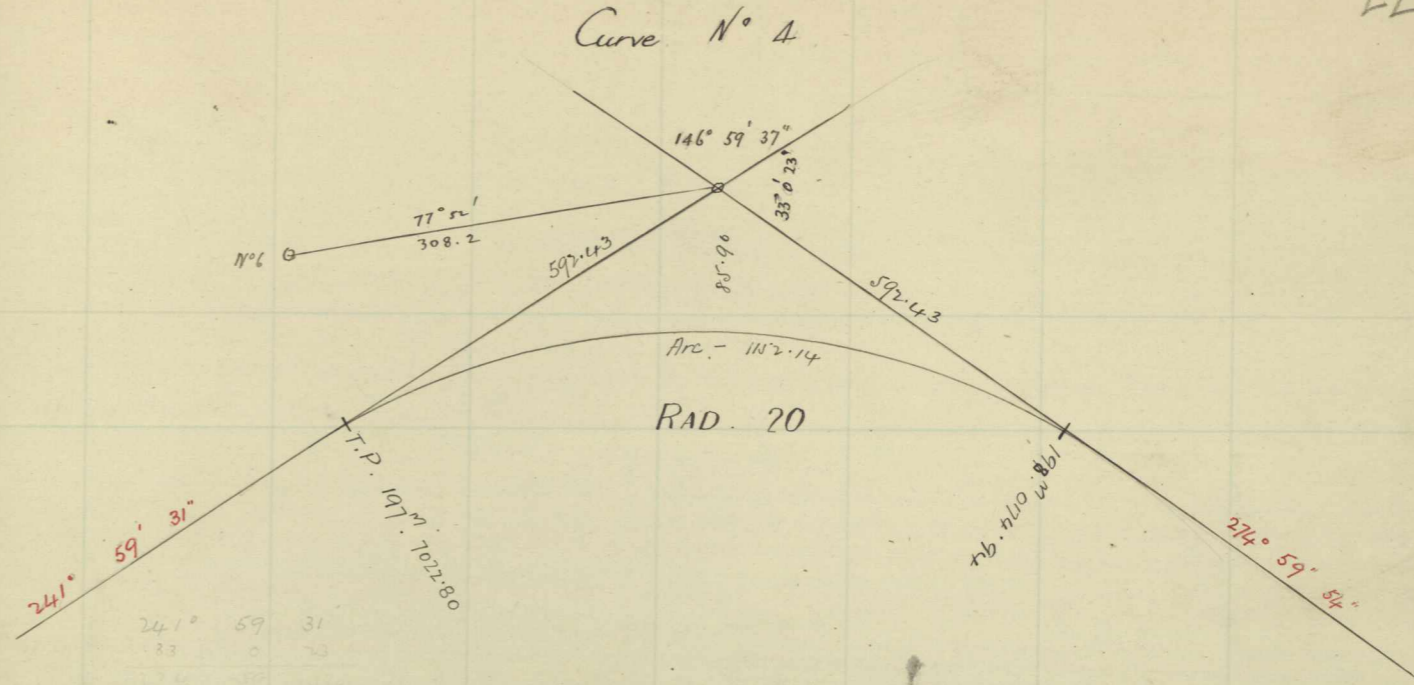
$146^{\circ} 59' 30''$
 $147^{\circ} 00' 00''$
 $146^{\circ} 59' 15''$
 $146^{\circ} 59' 45''$

Det. = $33^{\circ} 00' 23''$

$1^{\circ} 6.35 = 71$
 $1^{\circ} 25.95$
 $2^{\circ} 32.30 = 72$
 $1^{\circ} 25.95$
 $3^{\circ} 58.75 = 73$
 $1^{\circ} 25.95$
 $5^{\circ} 24.20 = 74$
 $1^{\circ} 25.95$
 $6^{\circ} 50.15 = 75$
 $1^{\circ} 25.95$
 $8^{\circ} 16.10 = 76$
 $1^{\circ} 25.95$
 $9^{\circ} 42.05 = 77$
 $1^{\circ} 25.95$
 $11^{\circ} 08.00 = 78$
 $1^{\circ} 25.95$
 $12^{\circ} 33.95 = 79$
 $1^{\circ} 25.95$
 $13^{\circ} 59.85 = 198^m$
 $1^{\circ} 25.95$
 $15^{\circ} 25.80 = 1$
 $1^{\circ} 25.95$
 $16^{\circ} 30.00 =$

Tan - 592.43
 Sec - 85.90
 Arc - 1152.14

T.P. - $197^m 7022.80$
 Sec $\frac{7598.87}{576.07}$
 TP - 198 0174.94

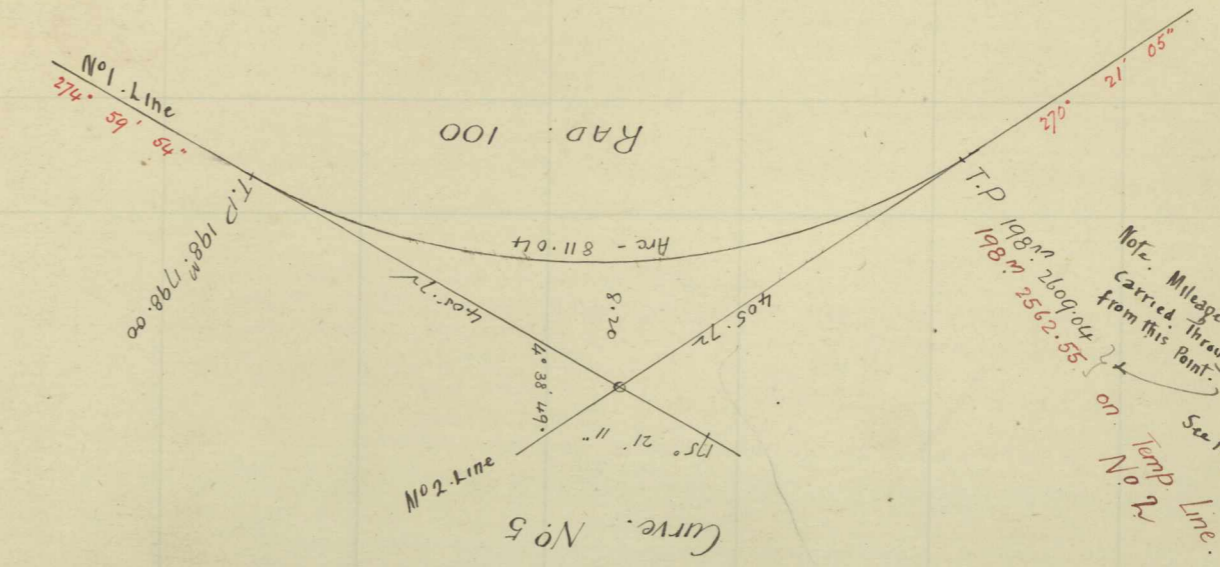


Observations. Curve No. 5.

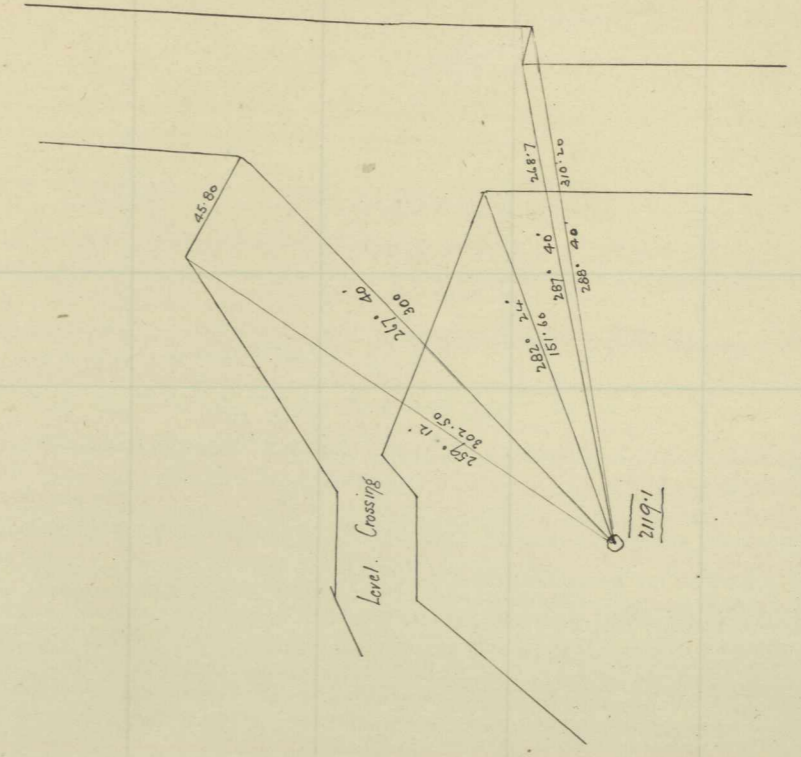
40°	1.00	40°	00	45"	175°	21' 45"
26°	23.00	26°	22	30"	175°	21' 00"
31°	44.00	31°	43	30"	175°	21' 00"
207°	5.00	207°	4	30"	175°	21' 00"
22°	26.00	22°	25	30"	175°	21' 00"
	27.00					

Def - 4° 38' 49" Tan = 405.72
 Sec = 8.20
 Arc = 811.04

360°	00	T.P. - 198 ^m	1798.00
379°	0.34	Sec.	405.52
359°	59.66		2208.52
359°	17.19	T.P. 198 ^m	2609.04
359°	42.49		
370°	17.19		
370°	25.28		
370°	17.19		
370°	08.09		
370°	17.19		
378°	50.90		
358°	17.19		
358°	33.71		
370°	17.19		
358°	16.52		
370°	17.19		
357°	59.33		
370°	17.19		
370°	42.16		

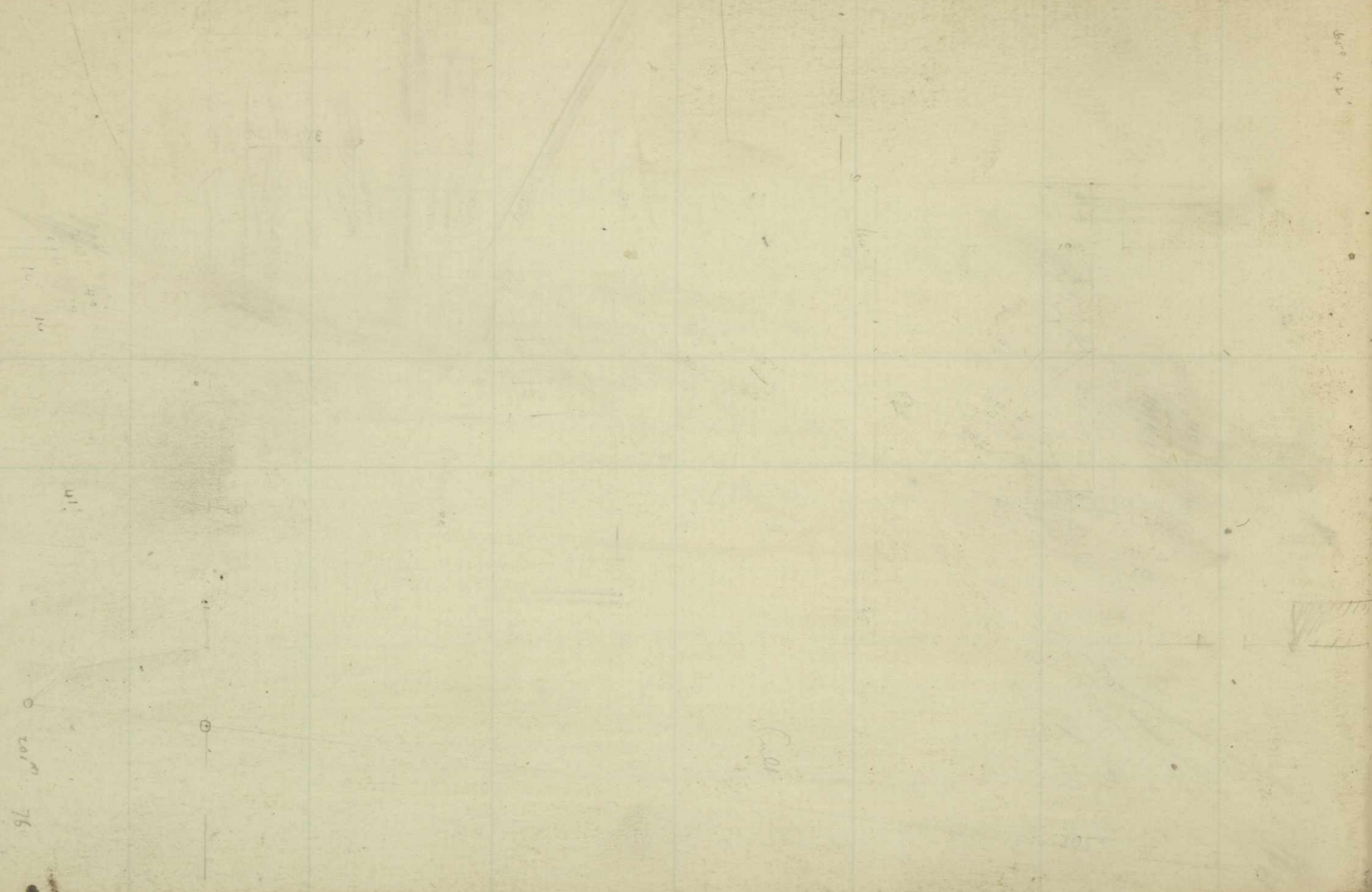


Note: Mileage of No. 2 Line carried through from this point. See page 10 on Temp Line.



$\frac{1.205}{0.141}$
8.54

$\frac{200}{40}$



173	18
171	47

243	10
241	39
1	31

124	10
122	39

