

1353

Torrey Pines
West Line

FIELD BOOK

MICROFILMED
DEC 23 1964

The notebook app 65 7/3/m

97.76
3.32490
879.840
39.104
479.0240
314.79
43.8490
133.110
591.6
82.470
179.00
82.47
96.53
312
326
320
294

294
340
11760
882
99960

334.17 Elev.
+ 11.7
345.87
- 5.6
340.27

460 + 2°05'	31°07' RF	Elev. 356.97
290 + 1°00'	76°24' RF	345.8
300 - 4°51'	21°28' LF	320.1
390 - 2°43'	39°30' LF	Alt
234 - 4°14'	28°14' LF	302.9
739.0 - 11°35'	35°55' RF	170.6
575 - 11°44'	28°27' RF	
340 - 1°-41'	22°05' LF	

19. diff Elev.

Elev. 337.8 B.C.
7.36
320.1
17.2
302.9
234
2944
3208
177.2
17.2224

4.73
42390
42570
1419
184470

Our Leather Bound Engineers Note Books are carried in the following rulings:

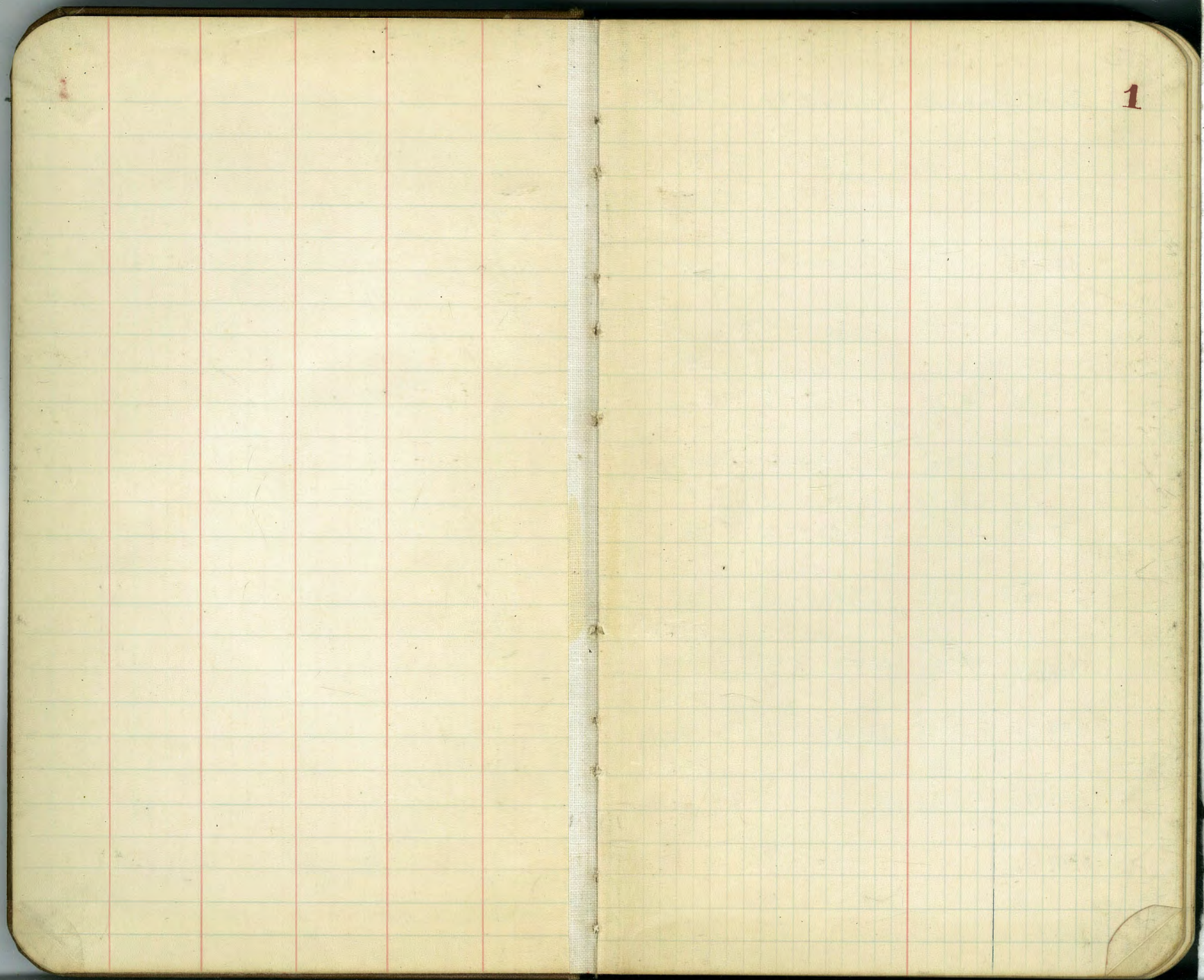
- No. 380 LEVEL BOOK. Left and Right Hand Page the same as Left Hand Page of this Book.
- No. 382 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 4 x 4 to the inch, Center Line Red.
- No. 384 MINING TRANSIT BOOK. Left Hand Page as in this Book, Right Hand Page 8x8 to the inch, Center Line Red.
- No. 385 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 8 vertical and 4 horizontal lines to the inch, Center Line Red.

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49.67
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118.020
137.69
149.4920
320.1
149.567172
170.6729.2960
95.96
760

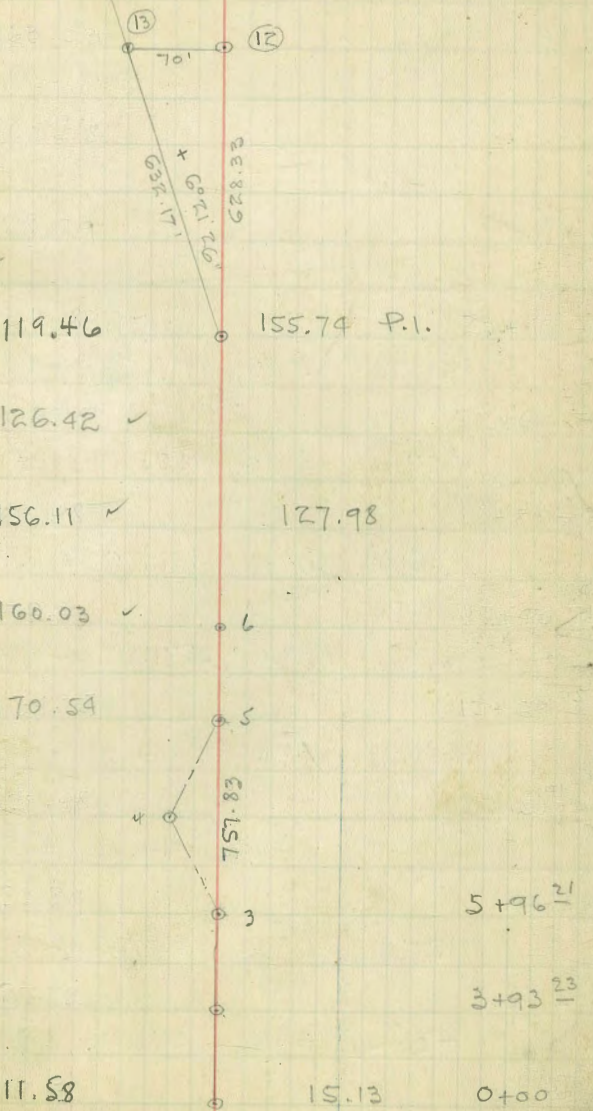


1

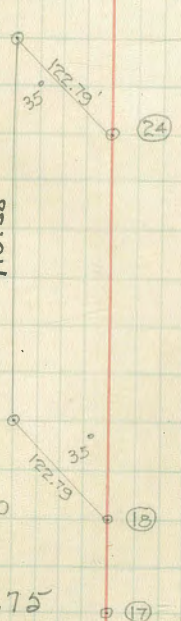
Slope Dist. V.A. Hor. Dist. V.A. Defl. Δ Diff. Elev. Elev. Grade Sta. ²

Δ 12
 Δ 11
 Δ 10
 Δ 9 P.I.
 Δ 8
 Δ 7
 Δ 6
 Δ 5
 Δ 4
 Δ 3
 Δ 2
 B.C.

Slope Dist.	V.A.	Hor. Dist.	V.A.	Defl. Δ	Diff. Elev.
		10.93		90°00'-L	+ 0.75 ✗
445.70	4°15'	444.47	+ 4°17'		+ 33.29 ✗
171.70	9°22'	169.41	+ 9°06'		+ 27.16 ✗
77.00	4°37'	76.75	- 5°11'	33°45'-L	- 6.96 ✗
387.00	4°20'	385.89	- 4°24'		- 29.69 ✗
337.15	0°50'	336.98	- 0°40'		- 3.92 ✗
274.00	1°37'	273.89	+ 1°36'		+ 7.65 ✗
454.10	0°55'	454.04	+ 0°55'	7°02'30"-L	+ 7.27 ✗
338.70	23°08'	311.47	+ 23°12'	17°20' } R 34°40' }	+ 133.43 ✓
203.05	1°27'	202.98	+ 1°36'	10°18' } L 20°35' }	+ 5.67 ✗
393.42	1°45'	393.23	+ 1°50'		+ 12.59 ✗



	Slope	V.A.	Hor. Dist.	V.A.	Defl. &	Diff. Elev.	Elev.
Δ 24					35°00'-R	314.38 ✓	
			122.79	+0°48'		+ 1.61 ✗	
Δ 23					145°00'-R	312.77 (23)	
	81.00	2°30'	80.92	-2°54'		- 4.10 ✗	
Δ 22						316.87	
			55.0'			+ 5.90 ✗	
Δ 21						310.97	
	121.80	11°06'	119.52	+11°11'		+ 23.62 ✗	
Δ 20						287.35	
	457.0	5°10'	455.14	+5°14'		+ 41.68 ✗	
Δ 19					35°00'-R	245.67 (19)	
	125.0'	10°47'	122.79	+11°20'		+ 24.57 ✗	
Δ 18	Offset				35°00'-L	221.10	
	476.0	3°16'	471.22	-3°20'		- 27.65 ✗	
Δ 17 P.I.					28°43'-L	248.75	
	281.39	1°24'	281.31	+1°09'		+ 5.65 ✗	
Δ 16						254.40	
			44.10	+5°20'		+ 4.10 ✗	
Δ 15						224.30	
	121.0	11°03'	118.76	+11°35'		+ 24.30 ✗	
Δ 14						226.00	
	485.00	4°06'	483.76	+4°15'		+ 35.99 ✗	
Δ 13						190.06	
			70.00			+ 9.40 ✗	



Slope V.A. Hor. Dist. V.A. Def. \angle Diff. Elev. Elev.

499.70
320.07
 819.77

B.C. $\frac{1}{2}$ Pavement

320.07'

- 8.00

346.39

350.00
- 3.57
 346.43

500.00 2°00'

499.70 -1°50'

- 16.00 x

A $\frac{1}{2}$ Pavement

16.95

ind. \angle 40°18'

+ 1.00 x

370.39

59+27 ⁷²

A 27

500.00 2°33'

499.51 + 2°32'

+ 22.10 x

Highway \angle 40°18'

369.39

A 26

445.95 3°42'

445.01 + 3°35'

+ 27.87 B.C. x

347.29

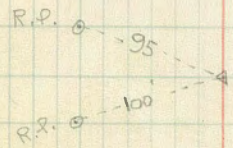
A 25

327.09 0°50'

327.05 + 0°53'

+ 5.04 x

319.42



H.L. 4.60'

Hor. Angle

Direct. 13°58'

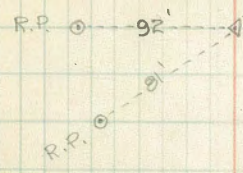
Invert. 27°56'

Vert. Angle

13°48'

13°48'

1200'



H.L. 4.44

Hor. Angle

Direct. 15°02'

Invert. 30°04'

Vert. Angle

14°42'

14°36'

Preliminary Survey

Sta	Align.	Defl. \angle	True Bearing	Curve Data	Dist. Jr. P.I. to P.I.
5+96 ²¹	= A B				33.39
5+00					
4+00					
3+00					
3+93 ²³					27.72
2+00					
1+00					
0+00					15.13

Sta	Align.	Defl. \angle	True Bearing	Curve Data	Dist. P.I. to P.I.
11+30 ¹⁰	= 45-S.T.				
11+08 ⁵²	B.C.	Lt.			
11+00					
10+00					
9+00					
8+00					
7+00					
6+00					

7

8

Sta	Align.	Defl. α	True Bearing	Curve Data	Dist. P.I. to P.I.
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8
6% Grade

17+00

16+00

15+00

14+00

13+00

12+69⁹⁵ on S.T.

12+00

2203.61

134.75

91.33

8
 Sta Align. Def. 4 True Curve Dist.
 Bearing Data P.I. P.I.

23+00

22+00

A = 40°06'26"
 R = 3000' P.I.
 T = 1095.09'
 L = 2100.01'

21+00

20+00

19+00

18+00

9

Sta.	Align.	Defl. \angle	True Bearing	Curve Data	Dist. P.I. to P.I.
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10

29+00

2°56.37

28+00

3°53.66

27+00

1560.10

26+00

25+00

24+00

Sta	Align	Defl. \angle	True Bearing	Curve Data	Dist. P.I. to P.I.	Elev.
35+00		4° 01.13'				
34+00		2° 06.54'				
33+00		0° 11.95'				
32+89 ⁵⁷	B.C.	Lt.				
32+29 ³⁶	= Δ 14					
32+08 ⁵³	E.C.					208.37
32+00		0° 04.89' ✓				196.07
31+00		1° 04.18' ✓				207.64
30+00		1° 59.08' ✓				

Sta	Align.	Defl. & Bearing	True Curve Data	Dist. P.I. - P.I.	Elev.
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41+28⁶⁷ = Δ 18

41+00

40+41³⁷ E.C. 47.41' - R

40+00 1°54.59

39+00

38+00 9°44.90

37+00 7°50.31 ✓

$\Delta = 28^{\circ}43'$
 $R = 1500'$
 $T = 383.97'$
 $L = 751.80'$ P.I.

36+00 5°55.74 ✓

Sta Align. Defl. \angle True Bearing Curve Data Dist. P.I. - P.I.

Elev.

47+00

46+00

45+00

2270.32

44+00

43+00

42+00

STA Align. Defl. & True Curve Dist.
 Bearing Data P.I. - P.I. Elev.

53+00

52+00

51+66²⁵ = Δ 25

51+00

50+00

49+00

48+39²⁰ = Δ 24

48+00

Sta	Align.	Defl. Δ	True Bearing	Curve Data	Dist. P.I. - P.I.	Elev.
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61+27⁷³ P.I.

59+00

58+00

57+00

56+11²⁶ = Δ 26

56+00

55+00

54+00

Profile Levels

Sta	+	H.I.	-	Elev.	Sta	+	H.I.	-	Elev.
B.M. # 4	Sec F B. 1238	129.30		139.21	T.P.			11.27	213.13
	12.86	152.07				0.96	214.09		
T.P.			9.78	142.29	T.P.			12.37	201.72
	13.12	155.41				0.97	202.69		
T.P.			4.40	151.01	Set B.M. on Torrey Pine E of Sta # 5	6.99			195.70 ✓
	12.32	163.33			T.P.			13.09	189.60
T.P.			0.29	163.04		0.31	189.91		
	12.54	175.58			T.P.			13.03	176.88
T.P.			0.00	175.58		0.99	177.87 ✓		
	13.01	188.59			14+00			5.8	172.1
T.P.			0.78	187.81	STA # 6			7.68	170.19
	12.69	200.50			T.P.			7.66	170.21
T.P.			0.27	200.23		6.79	177.00 ✓		
	12.26	212.49			17+00			2.4	174.60 ✓
T.P.			0.06	212.43	T.P.			12.84	164.16
	11.87	224.30				12.00	176.16 ✓		
T.P.			0.52	223.78	T.P.			2.06	174.10
	12.96	236.74				6.55	180.65 ✓		
T.P.			0.69	236.05	17+86 Top			2.3	178.4
	10.48	246.33			Bot.			18.0	162.7
T.P.			11.99	234.34	18+00			19.2	161.5
	1.43	235.77			T.P.			2.99	177.66x
T.P.			13.04	222.73	Hand Level	0.0	177.66		
	1.67	224.40			T.P.			13.0	164.66
						0.0	164.66		

Sta	+	H.I.	-	Elev
			0.0	169.66
18+50	13.0	177.66	7.4	170.3
			13.0	169.66
19+00	8.0	172.66	16.6	156.1
19+25			10.2	162.5
19+55			13.0	159.7
20+00			1.5	171.2
			0.0	172.66
+38	13.0	185.66	14.0	171.7
+74			5.5	180.2
21+00			2.0	183.7
			0.0	185.66
+45	13.0	198.66	5.7	193.0
22+00			3.5	195.2
			0.0	
23+00	8.0	206.66	8.6	198.1
				177.66 ✓
Instr. T.P.	10.34	188.00	1.95	186.05 ✓
	12.45	198.50		

Sta	+	H.I.	-	Elev
			0.21	198.29
			13.0	211.29
24+00			11.0	200.29
			7.96	206.25 ✓
27+00			10.1	196.2
28+00			4.0	202.3
+44			5.0	201.3
			0.95	205.20
			13.27	218.47 ✓
28+70			11.2	207.3
29+00			10.7	207.8
30+00			7.5	211.0
			1.78	216.69
			12.43	229.12 ✓
+70			9.6	219.5
			13.0	216.12
			0.0	216.12
+80			9.2	206.9
31+00			5.5	210.6
+21			6.8	209.3
				229.12 ✓
			0.70	228.42
			12.81	241.23 ✓
+30			14.6	226.6
+65			11.3	229.9

Sta		+	H.I.	-	Elev.	Sta		+	H.I.	-	Elev.
274			241.4								18
+80				18.2	223.0	T.P.				0.0	241.25
	T.P.			13.0	228.23			13.0	254.25		
	Handlevel	0.0	228.23			+30				5.6	248.6
32+00				9.0	219.2	+40				2.2	252.1
+18				3.2	225.0			Instr.			254.25
		Instr.	241.23 ✓					3.80	258.05 ✓		
+18				7.1	233.1	+77				3.6	254.5
	T.P.			0.23	241.00	37+00				6.4	251.7
		12.73	253.73 -			+31				15.1	243.0
33+00				3.2	250.5	T.P.				12.71	245.34
	T.P.			1.42	252.30			1.90	247.24 ✓		
		14.61	264.91 ✓					T.P.		13.0	234.24
T.P. B.M.	East of Sta	33+85		0.05	264.86	Handlevel	0.0		234.24		
			1.83	266.69 ✓		+65				7.5	226.7
34+00				1.4	265.3	38+00				7.2	227.0
	T.P.			12.44	254.25x	+08				6.0	228.2
	Handlevel	0.0	254.25			+15				1.8	232.4
	T.P.			13.0	241.25	+60				11.8	224.4
		0.0	241.25			39+00				10.4	223.8
34+60				6.0	235.3	+40				6.2	228.0
35+00				10.5	230.8	+60				8.1	226.1
+17				16.6	224.7	+90				1.8	232.4
+45				15.2	226.0	40+00				2.2	232.0
+59				9.2	232.0			Instr.	247.24 ✓		
36+00				1.9	239.4	T.P.				12.96	234.28

STA	+	H.I.	-	Elev.
	12.07	247.35 ✓		
T.P.			13.0	234.35
HandLevel	0.0	234.35		
40+41 ³⁷			10.0	224.4
41+28 ⁶²			3.3	231.1
	Instr.	247.35 ✓		
42+00			14.1	233.3
+50			8.2	239.2
T.P.			7.31	240.04
	12.53	252.57 ✓		
T.P.			13.0	239.57
HandLevel	13.0	252.57		
42+75			9.4	243.2
	Instr.	252.57 ✓		
T.P.			2.15	250.42
	12.59	263.01 ✓		
43+40			19.7	243.3
44+00			12.0	251.0
+50			7.0	256.0
45+00			2.4	260.6
T.P.			2.45	260.56
	12.68	273.24 ✓		
46+00			4.4	268.8
T.P.			4.19	269.05
	13.08	282.13 ✓		

STA	+	H.I.	-	Elev.
		282.13		
46+90			11.3	270.8
47+00			4.2	277.9
+10			9.7	272.4
+30			10.2	271.9
T.P. +50			1.72	280.4
	12.97	293.38 ✓		
T.P.			0.99	292.39
	14.86	305.25 ✓		
T.P.			2.48	302.77
	11.78	314.55 ✓		
T.P.			0.62	313.93
	13.17	327.10 ✓		
48+15			6.7	320.4
49+00			11.3	315.8
T.P.			13.0	314.10
HandLevel	3.0	317.10		
+50			5.5	311.6
+75			10.0	307.1
T.P.			13.0	304.10
	1.0	305.10		
50+00			11.3	293.8
+12			13.3	291.8
+20			17.4	287.7
+40			17.6	287.5
+55			8.7	296.4

STA		+	H.I.	-	Elev.
			305.1		
+75				3.8	301.3
	Instr.		327.10 ✓		
51+00	T.P.			2.96	324.14
		12.89	327.03 ✓		
+66				10.8	326.3
+80	T.P.			13.0	324.03
	HandLead	0.0	324.03		
50+15				19.0 ✓	304.8
	Instr.		337.03 ✓		
+66				14.5	324.5
53+15				11.0	326.0
+75				17.0	320.0
54+00				8.5	328.5
+89	T.P.			0.55	336.48
		12.37	348.85 ✓		
55+12				2.0	346.9
	T.P.			0.70	348.15
		12.58	360.73 ✓		
56+11				7.0	353.5
57+00				4.5	356.0
+68				1.8	358.9
	T.P.			1.90	358.81
		12.92	371.73 ✓		
58+00				10.0	361.5
59+00				7.0	364.5

STA		+	H.I.	-	Elev.
			371.7		
60+00				3.0	368.7
	T.P.			2.50 ✓	369.21
		10.40	379.61 ✓		
61+00	¹⁴ P.I. Pavement			3.51	376.1
	T.P.			14.54	367.07
		1.55	368.60		
	T.P.			13.10	355.50
		2.42	357.92		
	B.M. 350.00 P.I. Pavement			7.95	349.98

Subtract 3.57 from all Elevation for City Datum.

STA	Hor. Dist.	V.A.	Stadia	Diff. Elev.	Elev.
24+23					196.14
	30	-31°50'	47'	-21	
24+53					175.1
	108	-32°35'	152'	-68	
25+31					128.1
	125	-28°00'	160'	-67	
25+48					129.1
	220	-28°40'	170'	-93	
26+43					103.1
		~			
16+95					174.30
	17.5	-45°10'	45'	-22.50	
16+78					151.80
	36.5	-35°30'	55'	-26.5	
16+58					147.8
	36.5			-8.0	
16+58					139.8
	53.0	-39°25'	90'	-44.0	
16+42					130.3
	67.0	-32°30'	95'	-43.0	
16+28					131.3
	91.0	-34°50'	135'	-64.0	
16+00					110.3
	137.	-30°20'	185'	-81.0	

Sta	Hori. Dist.	V.A.	Stadia	Diff. Elev.	Elev.
15+58					93.3
	195'	-11°55'	203'	-41.50	
15+00					132.8
	254'	-1°40'	255'	-7.5	
14+41		~			166.8
14+00					172.10
	31.0'	-23°10'	37.0'	-13.4	
13+69					158.7
	100'	-4°50'	102'	-8.6	
13+00					163.5
	125'	-6°50'	127'	-15.1	
12+75					157.0
	150'	-4°30'	150'	-6.6	
12+50					165.5
	213'	-5°10'	215'	-19.5	
11+87					152.6
	257'	-2°30'	258'	-13.6	
11+43					158.5

Sta	+	H.I.	-	Elev.
P.I. on Causeway				15.23
	6.16	21.39		
+ 146'	Pavement on Curve			4.9 16.5
+ 100'			4.7	16.7
+ 60			4.9	16.5
+ 48'			11.5	9.9
+ 34'			11.5	9.9
+ 29'			7.5	13.9
0+00			4.8	16.6
+ 13'			8.3	13.1
+ 17'			13.8	7.6
+ 34'			14.1	7.3
+ 45'			0.6	20.8
			0.0	21.39
	13.0	34.39		
+ 98'			12.1	22.3
1+07			8.6	25.8
+ 26			10.0	24.4
+ 65			5.9	28.5
2+00			3.6	30.8
3+00			2.10	32.29
	13.0	45.29		
+ 69			11.5	33.8
4+00			14.0	31.3

23

Sta	+	H.I.	-	Elev.
4+28 T.P.			0.0	45.29
	13.0	58.29		
+ 65			11.0	47.3

Establishing BM's.

Sta	+	H.I.	-	Elev.	
BM.	assumed Elev.	See pg. #	16	195.70	
				3.57	
	City Datum			192.13	
	12.08	204.21			
	T.P.		0.29	203.92	
	12.20	216.12			
	T.P.		0.57	215.55	
	11.26	226.81			
BM.	T.P.		0.34	226.47	About 150' East of Sta 14+00
	7.30	233.79			
BM.	T.P.		3.41	230.38	" 150' " " " 13+00 on top of knoll
	1.20	231.58			
BM.	T.P.		10.67	220.91	
	8.01	228.92			
BM.	T.P.		11.89	217.03	
BM, T.P.	Page 18			264.86	
				3.57	
	City Datum			261.29	
	12.73	274.02			
	T.P.		0.75	273.27	
	12.42	285.69			
BM.	T.P.		0.45	285.24	About 150' East of Sta 34+00 on Top of Ridge
	12.47	297.71			
BM.	T.P.		1.04	296.67	

Sta	+	H.I.	-	Elev.	
				296.67	
	12.17	308.84			
T.P.			2.24	306.60	
	12.27	318.87			
T.P.			0.31	318.56	
	11.42	329.98			
B.M.			0.58	329.40	B.M. About 100' N of Sta. No 24

Location # 1

STA	Align.	Defl. &	Bearing	Curve Data	Dist. P.I. - P.I.
-----	--------	---------	---------	------------	-------------------

5+00

4+00

3+00

2+00

1+00

0+00

75' Offset Line

225' Offset Line



Sta	Align.	Defl. \angle	Bearing	Curve Data	Dist. P.I. - P.I.
-----	--------	----------------	---------	------------	-------------------

11+30 ¹⁰	P.O.T.				
11+00					

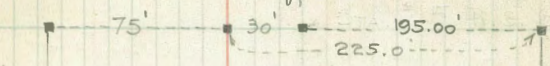
10+00

9+00

8+00

7+00

6+00



75' Offset Line

225' Offset Line

Sta	Align.	Defl. g	Bearing	Curve Data	Dist. P.I. - P.I.
-----	--------	---------	---------	------------	-------------------

17+40⁹⁷ - P.O.S.T.

17+00 0° 9.55' ✓

16+91⁶⁷ - B.C. Lt.

16+00

15+00

14+03⁹⁹ - P.O.T.

56° 42' 30" E

14+00

13+00

12+00

30' STA # 7 P.S. Pg. 2

S 1394.39 +
E 164.01 +

30' STA # 6 P.S. Pg. 2

Sta	Align.	Defl. Δ	Bearing	Curve Date	Dist. P.I. - P1.
23+00		11°37.09'	✓		
+ 50		10°39.79'	✓	$\Delta = 40^{\circ}06'30''$	
+ 39 ²³	P.I.			$R = 1500'$	
22+00		9°42.50'	✓	$T = 547.56$ ✓	
+ 50		8°45.20'	✓	$L = 1050.03$ ✓	
21+00		7°47.91'	✓		
+ 50		6°50.61'	✓		2239.23
20+00		5°53.32'	✓		
+ 50		4°56.02'	✓		
19+00		3°58.73'	✓		
+ 50		3°01.43'	✓		
18+00		2°04.14'	✓		
17+50		1°06.84'	✗		

Sta	Align.	Defl. Δ	Bearing	Curve Data	Dist. P.I. - P.I.
-----	--------	----------------	---------	------------	-------------------

29+00

1293.70

28+00

27+79⁷⁴ P.O.T = STA. # 13, pg. 2

+50

27+41⁷⁰ E.C. 20°03.25' ✓

27+00 19°15.45'

+50

18°18.15' ✓

26+00

17°20.86'

+50

16°23.56' ✓

25+00

15°26.27' ✓

+50

14°28.97' ✓

24+00

13°31.68' ✓

+50

12°34.38' ✓

Sta	Align.	Defl. Δ	Bearing	Curve Data	Dist. P.I. - P.I.
35+00		6°58.80' ✓		$\Delta = 26^{\circ} 30' 30''$ $\Delta = 26^{\circ} 30'$	
+87 ⁸⁴	P.I.			$2\Delta = 53^{\circ} 01'$	
+50		6°01.52' ✓		$R = 1500'$ $T = 353.32'$ ✓	
34+00		5°04.21' ✓		$L = 693.99'$ ✓	
+50		4°06.92' ✓			
33+00		3°09.62' ✓			
+50		2°12.33' ✓			
32+00		1°15.03' ✓			
+50		0°17.74' ✓			
+34 ⁵²	B.C.	Lt.			
31+00					
30+00					

STA	Align.	Def. α	Bearing	Curve Date	Dist. P.I. - P.I.
41+00					
+50					
40+00					
+50					
39+00	P.O.T.				
+50					
+28 ⁵¹	E.C.	13°15.15'	✓		
38+00		12°42.57'	✓		
+50		11°45.28'	✓		
37+00		10°47.98'	✓		
+50		9°50.69'	✓		
36+00		8°53.39'	✓		
+50		7°56.10'	✓		

STA	Align.	Defl. Δ	Bearing	Curve Data	Dist. P.I. - P.T.
-----	--------	----------------	---------	---------------	----------------------

47+00

46+00

45+00

2663.48

44+00

43+00

42+00

Sta	Align.	Defl. Δ	Bearing	Curve Date	Dist. P.I. - P.I.
-----	--------	----------------	---------	---------------	----------------------

53+00

52+00

51+00

50+00

49+00

48+48²⁹ P.O.T.

48+00

Sta	Align.	Defl. a	Bearing	Curve Data	Dist. $\Phi_1 - \Phi_2$
-----	--------	---------	---------	------------	-------------------------

59+00		5°19.48'	✓		
-------	--	----------	---	--	--

+50		4°22.19'	✓		
-----	--	----------	---	--	--

58+00		3°24.89'	✓		
-------	--	----------	---	--	--

+59 ⁹¹	P.O.S.T.				
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+50		2°27.60'	✓		
-----	--	----------	---	--	--

57+00		1°30.30'	✓		
-------	--	----------	---	--	--

+50		0°33.01'	✓		
-----	--	----------	---	--	--

+21 ²⁰	B.C.	Rt.			
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56+00					
-------	--	--	--	--	--

+83 ⁹³	P.O.T.				
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55+00					
-------	--	--	--	--	--

54+00					
-------	--	--	--	--	--

Sta	Align.	Defl. α	Bearing	Curve Date	Dist P.I. - P.I.
65+00		16°47.02'			
+50		14°47.73'			
64+00		14°52.43' ✓			
+50		13°55.14' ✓			
63+00		12°57.84' ✓			
+50		12°00.55' ✓			
62+00		11°03.25' ✓			
+50		10°05.96' ✓			
+38 ⁶⁷	P.I.			$\Delta = 38^{\circ}04'$	
61+00		9°08.66' ✓		$\Sigma \Delta = 76^{\circ}08'$	
+50		8°11.37' ✓		$R = 1500'$	
				$T = 517.47' ✓$	
				$L = 996.58' ✓$	
60+00		7°14.07' ✓			
+50		6°16.78' ✓			

Sta	Align.	Def. &	Bearing	Curve Date	Dist. P.I. - P.I.
-----	--------	--------	---------	---------------	----------------------

37

67+00

+ 17⁷⁸

E.C. 19°02'

66+00

18°41.61'

+ 50

17°44.32'

End of Rd. - Existing Pavement

Survey of ϕ of Causeway from 0+00 of
Proposed Alignment to R.R. Overhead Crossing
Sta Alignment Defl. & Bearing Curve Data $\overset{\text{Dist}}{\text{P.I. - P.I.}}$

38

Sta	Alignment	Defl. & Bearing	Curve Data	Dist P.I. - P.I.
37+67 ±	B.C.	Lt.	Approximately	
36+49 ⁴⁰	P.O.T	ϕ S.F. R.R. Overhead Crossing		
			N52°11'30"E	
31+85 ⁰¹	E.C.		$\Delta = 16^{\circ}35'$ R = 198.65' T = 28.95'	
31+27 ⁵¹	B.C.	Rt.	L = 57.50'	
			N35°36'30"E	
28+76 ²⁶	E.C.		$\Delta = 42^{\circ}19'$ R = 305.40' T = 118.20'	
26+50 ⁷⁰	B.C.	Rt.	L = 225.56'	
2+23 ⁵³	= B.C.	of Curve Beginning Torrey Pines Grade		
0+00			N6°42'30"W	N6°42'30"

$$\begin{array}{r} 2876.26 \\ 61 \\ \hline 2815.26 \end{array}$$

Plotted 10-9-29
T.G.H.

Causeway

Existing

ϕ

0+00

0+00

ϕ Proposed Alignment

195'

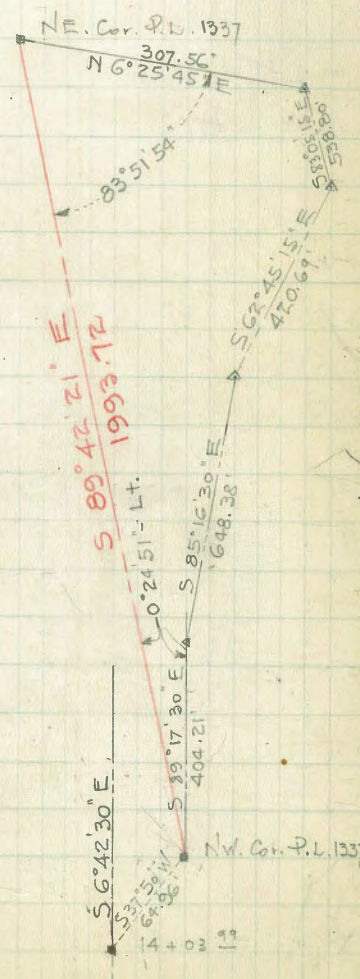
30'

75'

Pueblo Lines intersecting New Torrey Pines Rd.

Sta. Slope V.A. Hor. Dist Defl. Bearing

Sta.	Slope	V.A.	Hor. Dist	Defl.	Bearing	W -	E +	S +	N -	Dist.	BEARING	STA
■ Fd. Conc. Mon. NE. Cor. P.L. 1337	217.30	14°12' } 14°14'	307.56	90°29' } Lt	N 6°25'45" E		164.01					14+03.99
△	498.0	2°20' } 2°17'	497.61	80°58' } Lt			124.17					Mon.
△			41.19	90°29' } Lt	S 83°05'15" E		404.18					△
△	422.0	4°28' } 4°31'	420.69	20°21' } Lt			646.18					△
		4°35' }		40°40' } Lt			374.01					△
				20°20' }			534.88					△
							34.44					■ Mon.
							2117.86					
△			65.66	22°31' } Rt.	S 62°45'15" E							
				45°02'30" }								
				22°31'15" }								
	118.60	14°12' } 14°14'	114.96									
		14°17' }										
	469.90	5°25' } 5°28'	467.76		S 85°16'30" E							
		5°31' }										
				4°01' } Rt.								
				8°02' }								
				4°01' }								
	414.0	12°28' } 12°29'	404.21		S 89°17'30" E							
		12°30' }										
■ Fd. Conc. Mon. NW. Cor. P.L. 1337	70'	21°56' } 21°52'	64.96	52°52' } Rt.	S 37°50'00" W							
		21°49' }		105°45' }								
				52°52'30" }								
14+03.99 P.O.T. Sec 19. 28				44°33' } Rt.	S 6°42'30" E							
				89°05' }								
				44°32'30" }								



Sta Slope V.A. Hor. Dist. Defl. g Bearing

■ Fd. Post & Conc. Mon. SE. Cor. P.L. 1337

146.76'

S 1° 09' 20" E

△

8° 48' } Rt
17° 36' }
8° 48' }

347' 2° 06' } 2° 03' } 346.78

S 9° 57' 20" E

△

400' 4° 11' } 4° 08' } 398.96
4° 06' }

1° 10' } Lt
2° 10' }
1° 09' 30' }

S 8° 47' 50" E

△

199' 6° 40' } 6° 42' } 197.64
6° 45' }

19° 33' } Lt
39° 07' }
19° 33' 30' }

404' 0° 46' } 0° 50' } 403.96
0° 54' }

S 10° 45' 40" W

△

2° 58' } Lt
5° 56' }
2° 58' }

375' 1° 25' } 1° 22' } 374.80
1° 19' }

S 13° 43' 40" W

△

13° 26' } Rt
26° 52' }
13° 26' }

187.00 9° 56' } 9° 51' } 184.24
9° 47' }

206.78 12° 33' } 12° 30' } 201.88
12° 26' }

S 0° 17' 40" W

■ NE. Cor. P.L. 1337

90° 00' Lt.

Sta

Bearing

Dist

N

S +

E +

W -

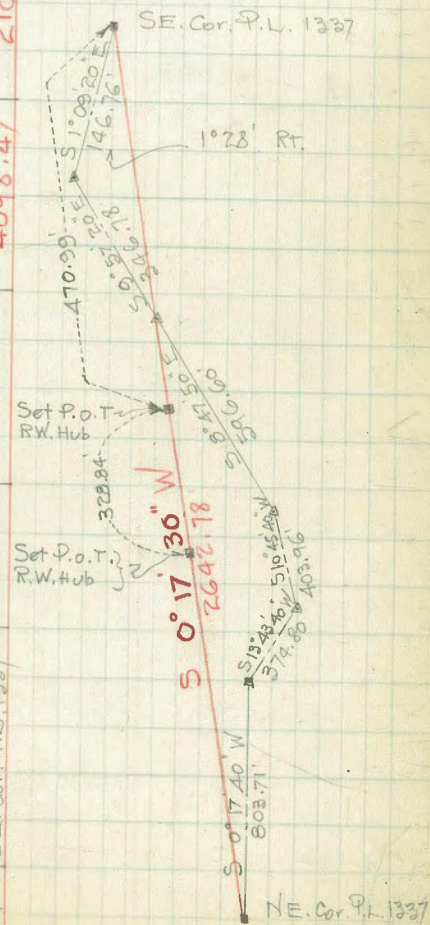
■ Mon. NE. Cor. P.L. 1337
S 0° 17' 40" W 803.71
S 13° 43' 40" W 374.80
S 10° 45' 40" W 403.96
S 8° 47' 50" E 596.60
S 9° 57' 20" E 346.78
S 1° 09' 20" E 146.76
■ Mon. SE. Cor. P.L. 1337

803.71
374.80
403.96
596.60
346.78
146.76

1455.93
803.70
364.09
396.86
589.58
341.56
146.75
4098.47

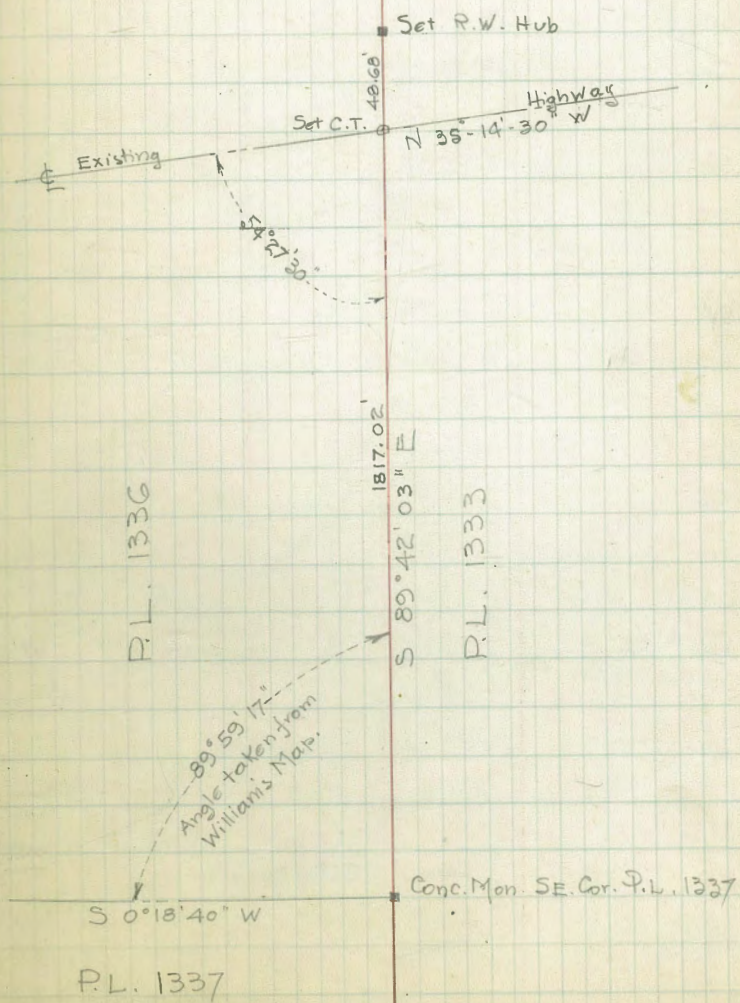
2117.86
91.24
59.95
2.96
2103.51

4.13
88.94
75.43

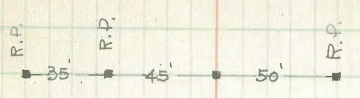


STA Slope V.A. Hor. Dist. Defl. α Bearing

■	Set R.W. Hub		48.68		
○	Set C.T.		14.12	62.80	
△			66'		
△	485.0	$\left. \begin{matrix} 2^{\circ}07' \\ 2^{\circ}02' \end{matrix} \right\} 2^{\circ}04'$	484.68		
△			200'		
△			35'		
△			105'		
△	490.0	$\left. \begin{matrix} 0^{\circ}34' \\ 0^{\circ}40' \end{matrix} \right\} 0^{\circ}37'$	489.97		
△	422.48	$\left. \begin{matrix} 1^{\circ}50' \\ 1^{\circ}56' \end{matrix} \right\} 1^{\circ}53'$	422.25		
■	SE. Cor. P.L. 1337				



STA	Align.	Defl. &	Bearing	Curve Data	Dist. P.I. - P.I.
+ 50		0-08.41			
15 + 35 ³³	B.C.	Lt.			
15 + 00					
+ 50					
14 + 00					
+ 50					
13 + 00					
+ 50	627.32				
12 + 00					
+ 50					
11 + 00					
+ 50					
10 + 00			N 69° 55' 30" W Corr. N 69° 47' 50" W		1310.51 ✓

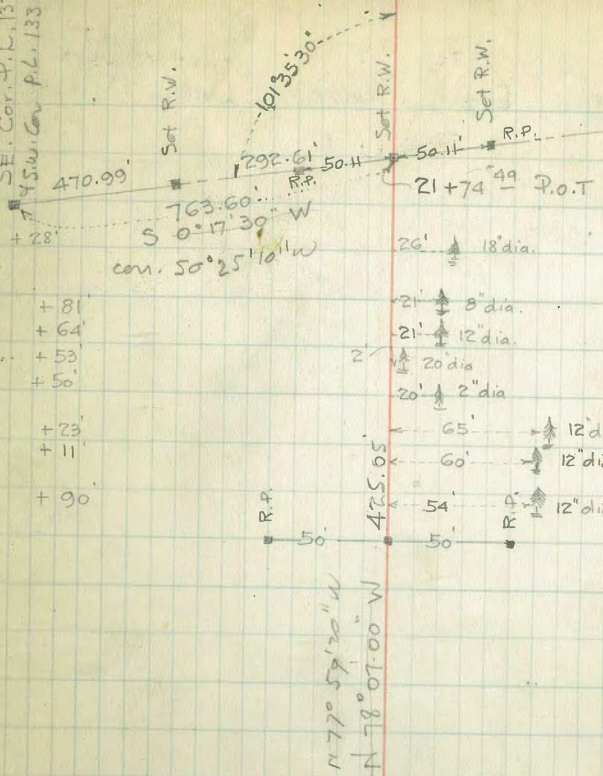


134 43

67' • BM. #2 324.82
2" I.P. with B.P.

Sta	Align.	Defl. Δ	Bearing	Curve Data	Dist. P.I. - P.I.
+74 ⁴⁹	P.O.T.				S-3335.08 E-2107.28
+50					
21+00					
+50	210.25				
+50			N78°07'00" W	1562.16 ✓	
			Corr. N77°59'20" W		
20+00					
+64 ²⁴	E.C.	4°05.75			
+50		3°57.57			
19+00		3°28.93			
+50		3°00.28			
18+00		2°31.64			
+50	P.I.	2°02.99		A = 8°11'50" R = 3000' T = 214.80 L = 428.91 ✓	S-3422.61 E-2523.22
17+00		1°34.35			
+50		1°05.70			
16+00		0°37.06			

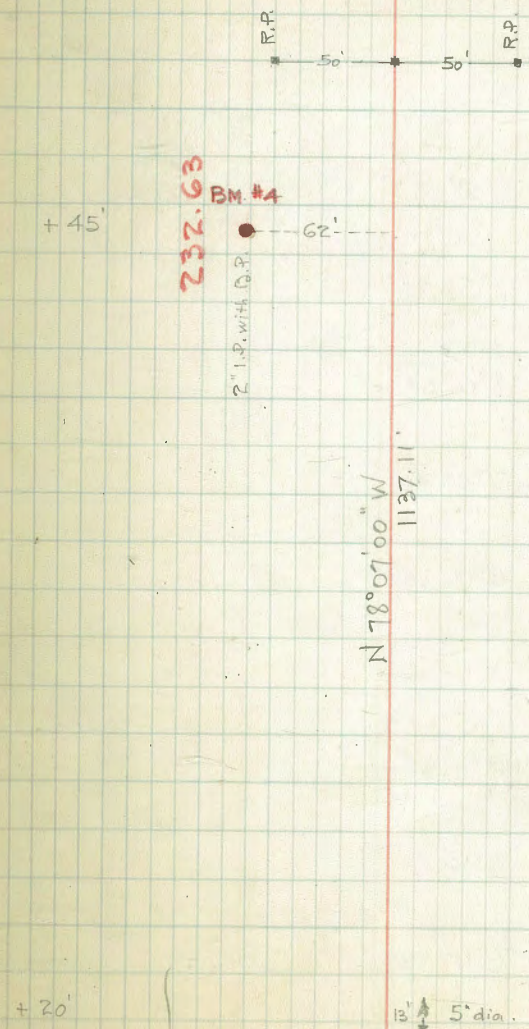
SE. Cor. P.L. 1337
SW. Cor. P.L. 1336



+42' **294.78** BM #3
2' I.P. with B.P. Corr.

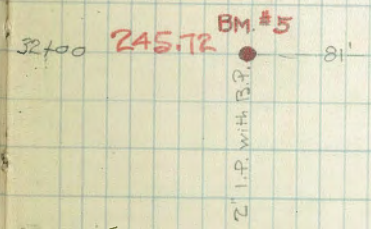
Torrey Pines

Sta	Align.	Defl. \angle	Bearing	Curve Data	Dist. P.I. - P.I.
+50		$0^{\circ}22.73'$			
+30 ¹⁷	B.C.	Rt.			
27+00					
+50					
26+00					
+50					
25+00					
+50					
24+00		555.68			
+50					
23+00					
+50					
22+00					



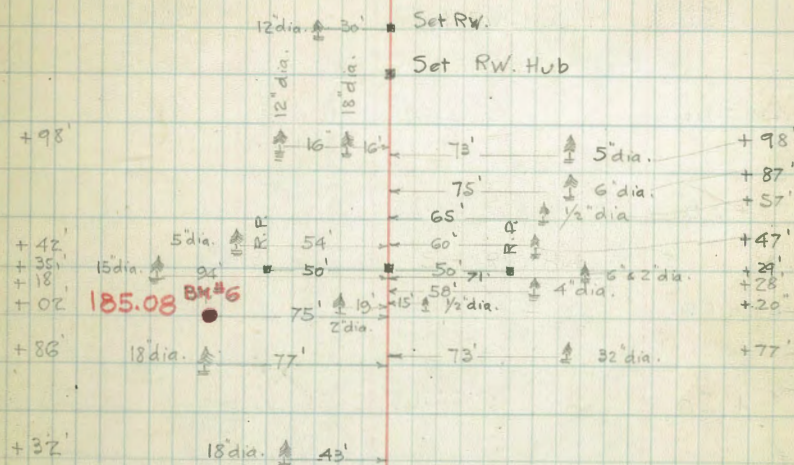
B \uparrow 5" dia.

Sta	Align.	Defl. &	Bearing	Curve Data	Dist. P.I. - P.I.
+ 50		11°50.27'			
33 + 00		10°52.98'			
+ 50	P.I.	9°55.68'		$\Delta = 42^\circ 22' 30''$ $R = 1500'$ $T = 581.43'$ $L = 1109.37'$	
32 + 00		8°58.39'			
+ 50		8°01.09'			
31 + 00		7°03.80'			
+ 50		6°06.50'			
30 + 00		5°09.21'			
+ 50		4°11.91'			
29 + 00		3°14.62'			
+ 50		2°17.32'			
28 + 00		1°20.03'			



N 78-07-00 W 1137.11'

Sta	Align.	Defl. &	Bearing	Curve Date	Dist. P.I. - P.I.
+50	P.O.T.				
+10°	P.O.T.		N35°44'30" W		1306.78'
39+00			corr. N35°46'50" W		
		70.46'			
+50					
+39 ⁵⁹	E.C.	21°11.25'			
38+00		20°25.93'			
+50		19°28.63'			
37+00		18°31.34'			
+50		17°34.04'			
36+00		16°36.75'			
+50		15°39.45'			
35+00		14°42.16'			
+50		13°44.86'			
34+00		12°47.57'			

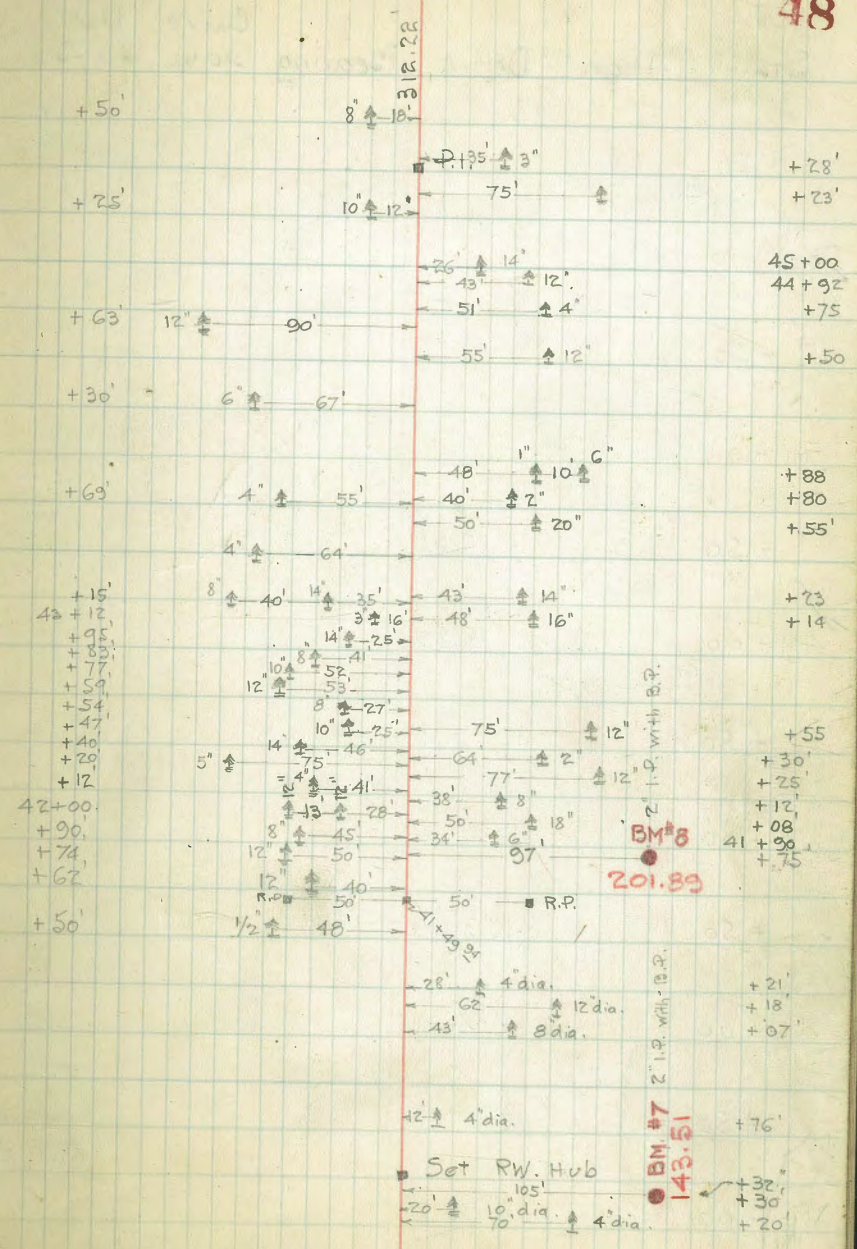


Sta	Align.	Defl. &	Bearing	Curve Data	Dist. P.I. - P.I.
+50	P.I.	7°10.57'		A = 29°04'20" R = 1650' T = 427.83 L = 837.22	
45 +00		6°18.44'			
+50		5°26.30'			
44 +00		4°34.17'			
+50		3°42.03'			
43 +00		2°49.90'			
+50		1°57.76'			
42 +00		1°05.63'			
+49 ⁹⁴	P.O.S.T.				
+50	12.88	0-13.49'			
+37 ⁰⁶	B.C.				
41 +00					
+50					
+35 ⁰⁰	P.O.T.				
40 +00					

Right of way alignment not changed

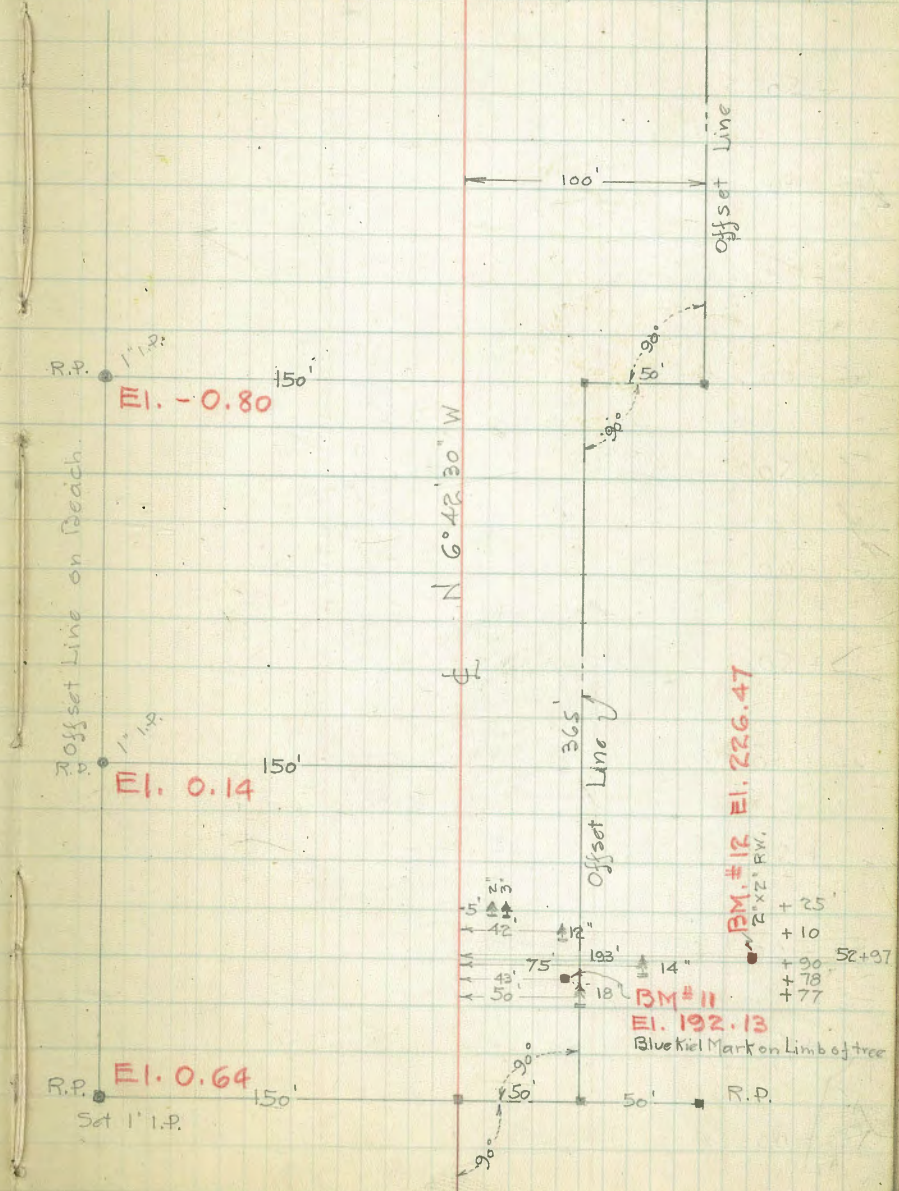
See pg. 57

here on of proposed improvement
Rt. Alignment Changed from

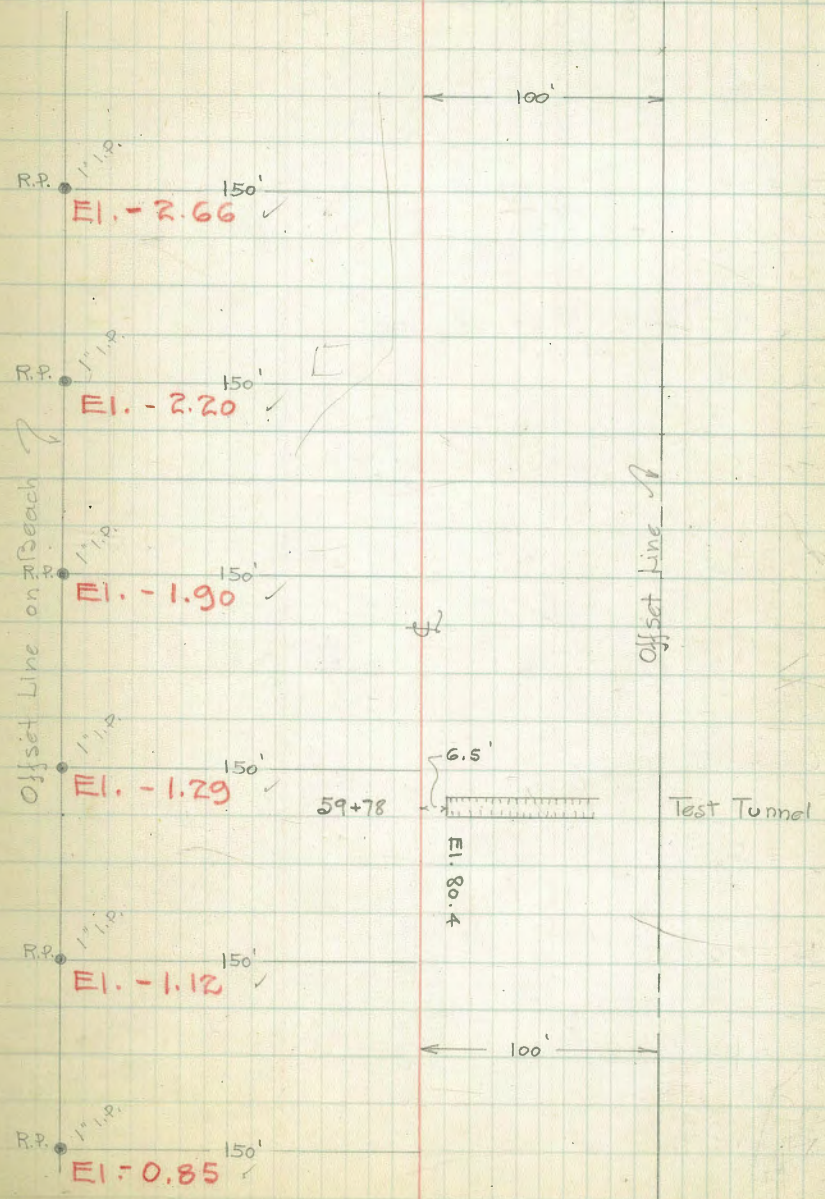


Sta	Align.	Defl. &	Bearing	Curve Data	Dist. P.I. - P.I.
+50					
57+00					
+50					
56+00	x				
+50					
55+00					
+50					
54+00	x				
+50					
53+00					
+50					
+35					
52+00					

54+00
52+35
165



Sta	Align.	Defl. x	Bearing	Curve Data	Dist. P.I. - P.I.
+50					
63+00	x				
+50					
62+00	x				
+50					
61+00	x				
+50					
60+00	x				
+50					
59+00	x				
+50					
58+00	x				



Sta Align. Defl. Bearing Curve Data Dist. P.I. - P.I.

+ 50					
75 + 00					
+ 50					
74 + 00					
+ 50					
73 + 00					
+ 50					
72 + 00					
+ 50					
71 + 00					
+ 50					
70 + 00					

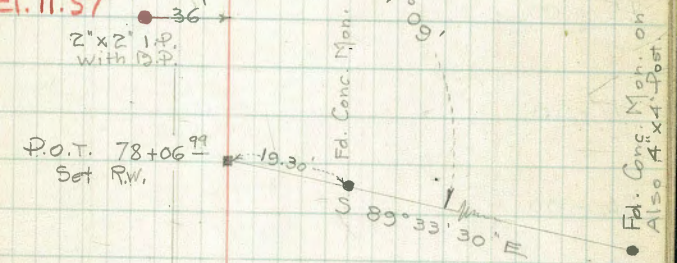
→ 22' ←

Existing Pavement

← 22' →

Sta	Align.	Defl. Δ	Bearing	Curve Data	Dist. P.I. - P.I.
+50					
81+00					
+50					
80+00					
+50					
79+00					
+50					
+06 ⁹⁹	P.O.T. with P.L.L.				
78+00					
+50					
77+00					
+50					
76+00					

BM. # 14. El. 11.57



Sta.	Align.	Deft. &	Bearing	Curve Data	Dist. P.I. - P.I.
+50					
87+00					
+50					
86+00					
+50					
85+00					
+50					
84+00					
+50					
83+00					
+50					
+15 ⁹⁰	P.O.T.				
82+00					

-22'

Existing Pavement

-22'

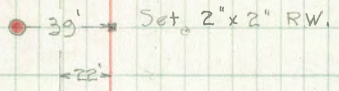
P.O.T. Set R.W.

Sta	Align.	Defl. \angle	Bearing	Curve Data	Dist. P.I. - P.I.
92 + 00					
+ 50					
91 + 00					
+ 50					
90 + 00					
+ 50					
89 + 00					
+ 50					
88 + 00					

$89 + 36 = 89 + 51 = 88$ See pg. 65

BM. # 15
Elev. 6.76

2" I.P. with B.P.



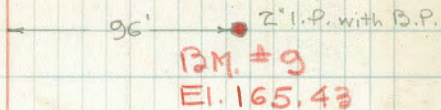
Existing Pavement

Change of Alignment from Sta. 41 + 37⁰⁶ B.C.
to End of Road.

See pp. 48

57

Sta	Align.	Defl. Δ	Bearing	Curve Data	Dist. P.I. - P.I.
+ 50		8° 54.84'			
46 + 00		8° 02.71'			
+ 50		7° 10.57'		$\Delta = 26^{\circ} 34' 06''$	
	P.I.			$R = 1500'$	Δ
				$T = 389.56$	
45 + 00		6° 18.44'		$L = 765.11$	
+ 50		5° 26.30'			
44 + 00		4° 34.17'			
+ 50		3° 42.03'			
43 + 00		2° 49.90'			
+ 50		1° 57.76'			
42 + 00		1° 05.63'			
+ 49 ⁹⁴	P.O.S.T.				
+ 50	12.88	0° 13.49'			
+ 37 ⁰⁶	B.C.	Pt.			
41 + 00			N 35° 36' 50" W		



Sta	Align.	Def. &	Bearing	Curve Date	Dist. P.I. - P.I.
+ 50					
+ 22 ⁰⁷	P.O.T.				
52 + 00					
+ 50					
51 + 00					
		319.86'			
+ 50					
50 + 00					
+ 50			N 9° 02' 44" W		837.77'
+ 02 ²¹	E.C.	13° 17' 03"			
49 + 00	40.14'	13° 15.52'			
+ 62 ⁰⁷	P.O.S.T. ✓				
+ 50		12° 23.38'			
48 + 00		11° 31.25'			
+ 50		10° 39.11'			
47 + 00		9° 46.98'			

165
 155
 145
 135
 125
 115
 105
 95
 85
 75
 65
 55
 45
 35
 25
 15
 5
 R.P.

1st I.P. El. 0.64

4774.28
 4902.21
 72.07

58

319.86'

B.M. # 10
 El. 137.20

• 2' I.P. with B.M. # 65

337 + 11° 28'
 75-18-L

40.14'

Sta	Align.	Defl. &	Bearing	Curve Data	Dist. P.I. - P.I.
-----	--------	---------	---------	------------	-------------------

+ 50

58 + 00

+ 50

57 + 00

+ 50

56 + 00

+ 50

55 + 00

+ 50

+ 18⁶³ E.C.

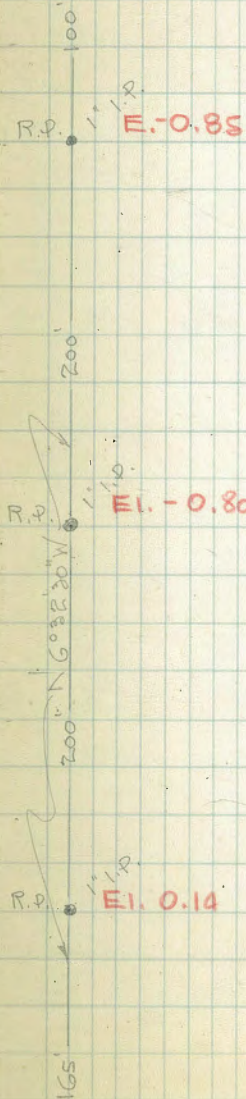
54 + 00

+ 50 P.I.

53 + 00

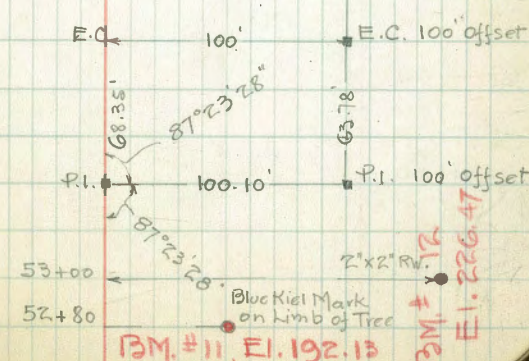
52 + 82⁰³ B.C. Rt.

Δ
 $A = 5^{\circ}13'04''$
 $R = 1500'$
 $T = 68.35$
 $L = 136.60$

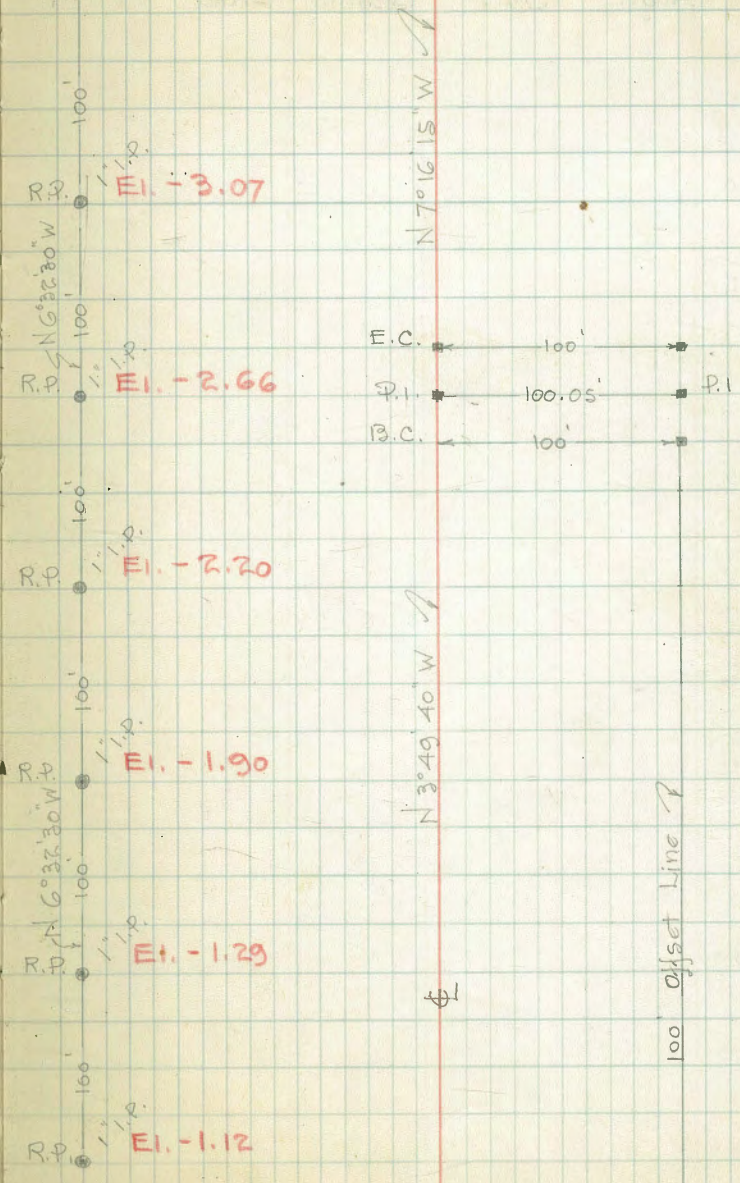


No points set on this line

Points set on this 100' offset line



Sta	Align.	Defl. α	Bearing	Curve Data	Dist. P.I. - P.I.
+50					
64 +00			N7°16'15"W		
+50					
+46 ⁴¹	E.C.			$\Delta = 3^{\circ}26'35''$	
63 +00	P.I.			R = 1500'	A
+56 ²⁷	B.C.	Lt.		T = 48.08'	
+50				L = 90.14'	
62 +00					
+50			N3°49'40"W		
61 +00					
+50					
60 +00					
+50					
59 +00					



Sta	Align.	Def. &	Bearing	Curve Data	Dist. P.I. - P.I.
-----	--------	--------	---------	------------	-------------------

+50

70+00

+50

69+00

+50

68+00

+50

67+00

+51 ³⁶/₄₂ Comp. Chained

+50

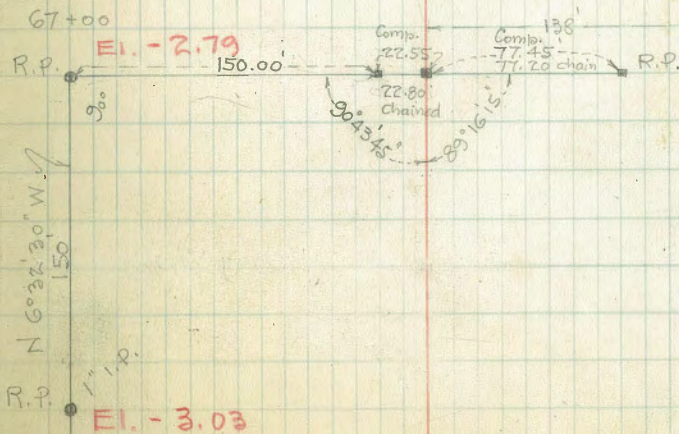
66+00

+51 ³⁵/₄₂

+50

65+00

N 7° 16' 15" W



166
22
7.545

61

100
22 = 4.545
7.545 - 4.545 = 3.00

N 7° 16' 15" W

61

B.P. on E. End of Curb
P.M. # 13
EI. 30.50

STA	Align.	Defl. &	Bearing	Curve Data	Dist. P.I. - P.I.
+ 50					
76 + 00					
+ 50					
75 + 00					
+ 50					
74 + 00					
+ 50					
73 + 00					
+ 50					
72 + 00					
+ 50					
71 + 00					

Sta	Align.	Defl. &	Bearing	Curve Data	Dist. P.I. - P.I.
+ 50					
82+00					
+ 50					
81+00					
+ 50					
80+00					
+ 50					
79+00					
+ 50					
78+00					
+ 50					
77+00					

2" I.P. with B.P.

79+02 BM. # 14
El. 11.57

Sta	Align.	Defl. &	Bearing	Curve Data	Dist. P.I. - P.I.
+ 50					
88 + 00					
+ 50					
87 + 00					
+ 50					
86 + 00					
+ 50					
85 + 00					
+ 50					
84 + 00					
+ 50					
83 + 00					

Sta	Align.	Defl. α	Bearing	Curve Data	Dist. P.I. - P.I.
92+00					
+50					
91+00					
+50					
90+00					
89+51 ⁸⁸					
= 89+50 ³⁶					See pag. 56
89+00					

BM. # 15
El. 6.76

2' I.P. with B.P.

39'

N 6°42'30" W

N 7°16'15" W

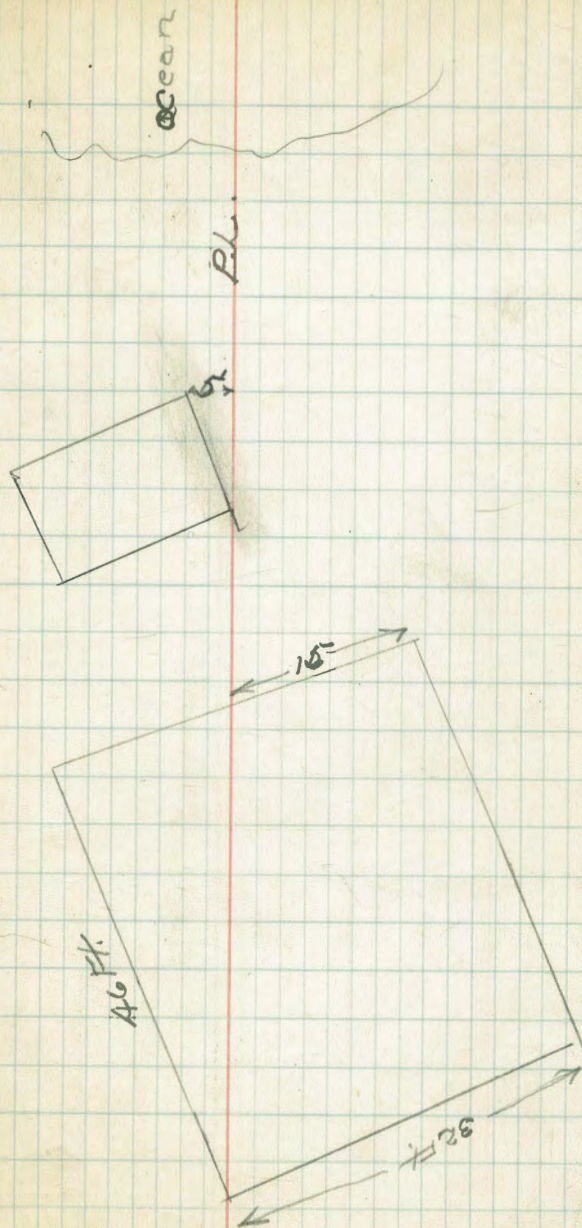
67

71

72

Dist	V.A.	Hor. Angle	Diff Elev	Elev	
				160.	
540	-3°43	89°28	35.	125	
550	-2°17	82°15	22.	138	
710	-4°15	83°30	52.	108	
710	-7°34	76°	92.	68	
570	-6°45	81°45	60.	100	
370	350	-13°46	83°	86.	74
190	T.P.	+5°46	54°06	19	179 ✓
490	479	-8°36		96.53	
210	-	-5°00			
134		4°15			

73



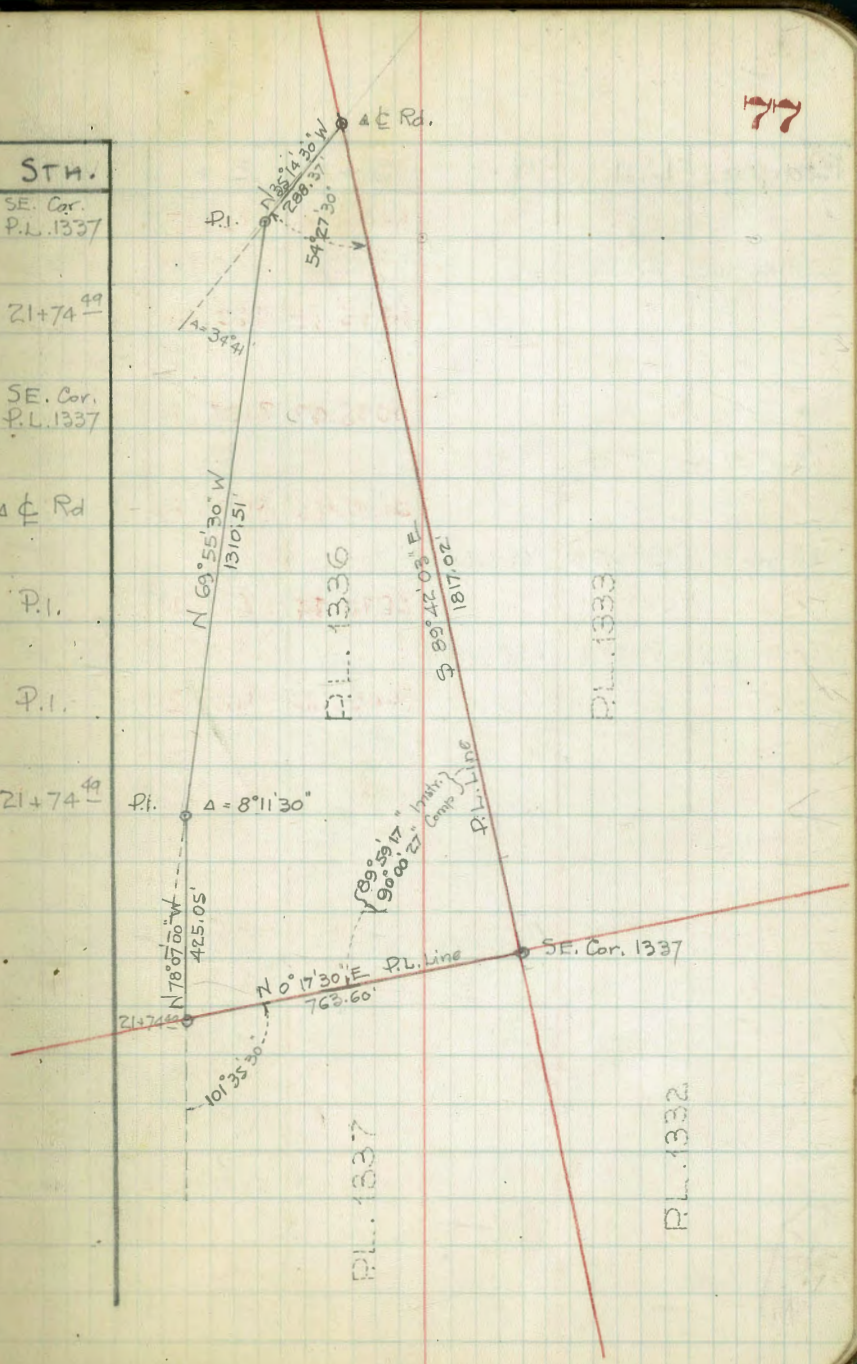
74

75

75

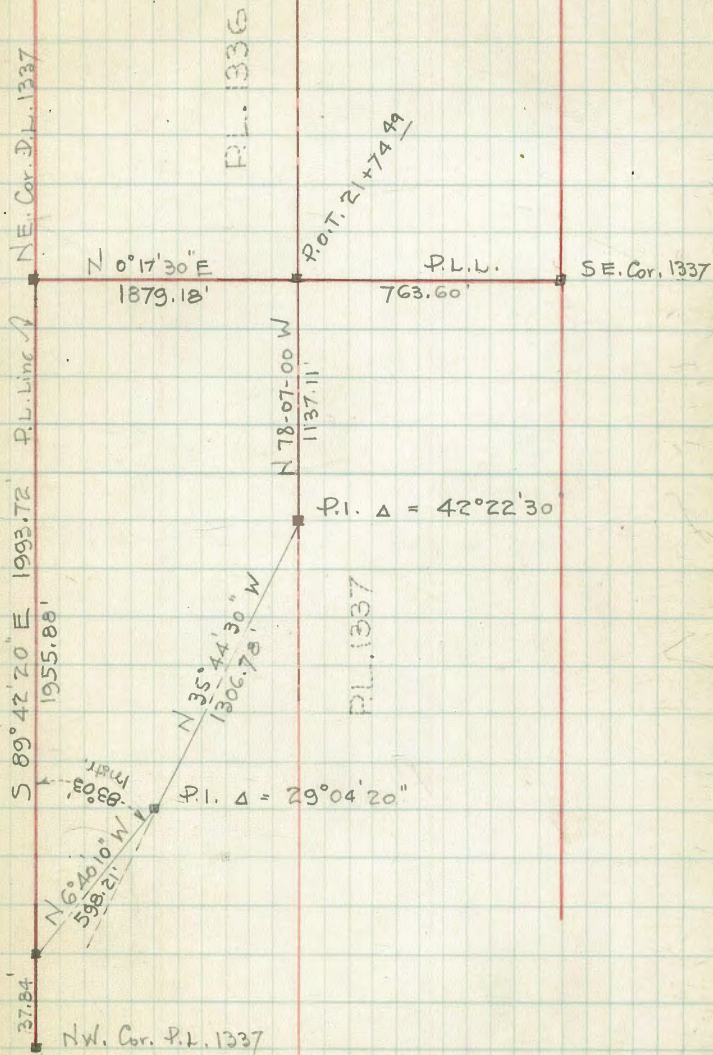
76

Bearing	Dist	N -	S +	E +	W -	STN.
			4098.47	2103.51		SE. Cor. P.L. 1337
N 0° 17' 30" E	763.60	763.59		3.89		P.I.
			3334.88	2107.40		21+74 ⁴⁹
			4098.47	2103.51		SE. Cor. P.L. 1337
S 89° 42' 03" E	1817.02		9.49	1817.00		4 E Rd
N 35° 14' 30" W	288.37	235.52			166.40	P.I.
N 69° 55' 30" W	1310.51	449.83			1230.89	P.I.
N 78° 07' 00" W	425.05	87.53			415.94	P.I.
			3335.08	2107.28		21+74 ⁴⁹
			3334.88	2107.40		
			.20	.12		



77

Bearing	Dist.	N -	S +	E +	W	STA.
			1445.70	124.17		NW. Cor. P.L. 1337
S 89° 42' 20" E	37.84		0.19	37.84		
			1445.89	162.01		
			3335.08	2107.28		21+74 ⁴⁹
N 78° 07' 00" W	1137.11	234.15			1112.74	P.L. 1337
			3100.93	994.54		P.I.
N 35° 44' 30" W	1306.78	1060.66			763.33	
			2040.27	231.21		
N 6° 40' 10" W	598.21	594.16			69.48	P.I.
			1446.11	161.73		
			1445.89	164.01		
			.22	0.28		



Be 15 + 35³³
 515' + 2-35 44-55 - LF
 268' + 5-58' 6-15 RB

365 - 4°23' 52-12-RF 362.88 27.81 306.0
 153 + 3°46' 88-47-LF 343.84

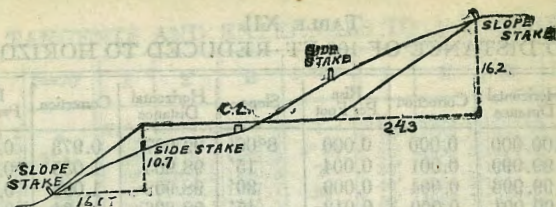
99.42 x 365 7.62 x 365
 29826 2286
 59652 4572
 49710 3810
 3628830 278130
 333.8
 306.0

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 1/2 to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance from side stake to slope stake. If ground is not nearly level, it is necessary to cut, elevate or fill. Add this amount to cut or fill and find distance in table. Set up rod at this point and line of sight should cut target.

IMPROVED TABLES AND INFORMATION

99.57 x 153 6.56 x 153
 3280
 1968
 700368
 343804

The distance from a point on the tangent to the curve is very nearly the square of the tangent length divided by twice the radius.



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1 1/4 TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0 00	0 15	0 30	0 45	0 60	0 75	0 90	1 05	1 20	1 35	0
1	1 50	1 65	1 80	1 95	2 10	2 25	2 40	2 55	2 70	2 85	1
2	3 00	3 15	3 30	3 45	3 60	3 75	3 90	4 05	4 20	4 35	2
3	4 50	4 65	4 80	4 95	5 10	5 25	5 40	5 55	5 70	5 85	3
4	6 00	6 15	6 30	6 45	6 60	6 75	6 90	7 05	7 20	7 35	4
5	7 50	7 65	7 80	7 95	8 10	8 25	8 40	8 55	8 70	8 85	5
6	9 00	9 15	9 30	9 45	9 60	9 75	9 90	10 05	10 20	10 35	6
7	10 50	10 65	10 80	10 95	11 10	11 25	11 40	11 55	11 70	11 85	7
8	12 00	12 15	12 30	12 45	12 60	12 75	12 90	13 05	13 20	13 35	8
9	13 50	13 65	13 80	13 95	14 10	14 25	14 40	14 55	14 70	14 85	9
10	15 00	15 15	15 30	15 45	15 60	15 75	15 90	16 05	16 20	16 35	10
11	16 50	16 65	16 80	16 95	17 10	17 25	17 40	17 55	17 70	17 85	11
12	18 00	18 15	18 30	18 45	18 60	18 75	18 90	19 05	19 20	19 35	12
13	19 50	19 65	19 80	19 95	20 10	20 25	20 40	20 55	20 70	20 85	13
14	21 00	21 15	21 30	21 45	21 60	21 75	21 90	22 05	22 20	22 35	14
15	22 50	22 65	22 80	22 95	23 10	23 25	23 40	23 55	23 70	23 85	15
16	24 00	24 15	24 30	24 45	24 60	24 75	24 90	25 05	25 20	25 35	16
17	25 50	25 65	25 80	25 95	26 10	26 25	26 40	26 55	26 70	26 85	17
18	27 00	27 15	27 30	27 45	27 60	27 75	27 90	28 05	28 20	28 35	18
19	28 50	28 65	28 80	28 95	29 10	29 25	29 40	29 55	29 70	29 85	19
20	30 00	30 15	30 30	30 45	30 60	30 75	30 90	31 05	31 20	31 35	20
21	31 50	31 65	31 80	31 95	32 10	32 25	32 40	32 55	32 70	32 85	21
22	33 00	33 15	33 30	33 45	33 60	33 75	33 90	34 05	34 20	34 35	22
23	34 50	34 65	34 80	34 95	35 10	35 25	35 40	35 55	35 70	35 85	23
24	36 00	36 15	36 30	36 45	36 60	36 75	36 90	37 05	37 20	37 35	24
25	37 50	37 65	37 80	37 95	38 10	38 25	38 40	38 55	38 70	38 85	25
26	39 00	39 15	39 30	39 45	39 60	39 75	39 90	40 05	40 20	40 35	26
27	40 50	40 65	40 80	40 95	41 10	41 25	41 40	41 55	41 70	41 85	27
28	42 00	42 15	42 30	42 45	42 60	42 75	42 90	43 05	43 20	43 35	28
29	43 50	43 65	43 80	43 95	44 10	44 25	44 40	44 55	44 70	44 85	29
30	45 00	45 15	45 30	45 45	45 60	45 75	45 90	46 05	46 20	46 35	30
31	46 50	46 65	46 80	46 95	47 10	47 25	47 40	47 55	47 70	47 85	31
32	48 00	48 15	48 30	48 45	48 60	48 75	48 90	49 05	49 20	49 35	32
33	49 50	49 65	49 80	49 95	50 10	50 25	50 40	50 55	50 70	50 85	33
34	51 00	51 15	51 30	51 45	51 60	51 75	51 90	52 05	52 20	52 35	34
35	52 50	52 65	52 80	52 95	53 10	53 25	53 40	53 55	53 70	53 85	35
36	54 00	54 15	54 30	54 45	54 60	54 75	54 90	55 05	55 20	55 35	36
37	55 50	55 65	55 80	55 95	56 10	56 25	56 40	56 55	56 70	56 85	37
38	57 00	57 15	57 30	57 45	57 60	57 75	57 90	58 05	58 20	58 35	38
39	58 50	58 65	58 80	58 95	59 10	59 25	59 40	59 55	59 70	59 85	39
40	60 00	60 15	60 30	60 45	60 60	60 75	60 90	61 05	61 20	61 35	40
41	61 50	61 65	61 80	61 95	62 10	62 25	62 40	62 55	62 70	62 85	41
42	63 00	63 15	63 30	63 45	63 60	63 75	63 90	64 05	64 20	64 35	42
43	64 50	64 65	64 80	64 95	65 10	65 25	65 40	65 55	65 70	65 85	43
44	66 00	66 15	66 30	66 45	66 60	66 75	66 90	67 05	67 20	67 35	44
45	67 50	67 65	67 80	67 95	68 10	68 25	68 40	68 55	68 70	68 85	45
46	69 00	69 15	69 30	69 45	69 60	69 75	69 90	70 05	70 20	70 35	46
47	70 50	70 65	70 80	70 95	71 10	71 25	71 40	71 55	71 70	71 85	47
48	72 00	72 15	72 30	72 45	72 60	72 75	72 90	73 05	73 20	73 35	48
49	73 50	73 65	73 80	73 95	74 10	74 25	74 40	74 55	74 70	74 85	49
50	75 00	75 15	75 30	75 45	75 60	75 75	75 90	76 05	76 20	76 35	50

Computed by L. Leland Locke.

24-51
24-51
0 - 49 - 42"

1955.88
110
1845.88

2390
195
4137
9332

2765
380

4137
380
4519

485 - 2-07
2-02

15+35
214
1749

39 + 10.00
38 - 29.58
70.46

390	- 1.29	55 + 83	93
480	.90	1	75.98
.90	2.19		
359.66	263.45	57 + 59	.91
19.10	188	3	78.76
378.76	390	61 + 38	.67

Stu. 59+78 $\frac{5.63}{31} \text{ E.H.} - 2.19$ 223.94

200' V.A. 27° 49' 8.29

48 + 39	200	+ 2.00	
86	200.29		
174.60	4.15		

174.60	196.14	500
30	90	78
174.30	93493 x 90	1422
84.1437		
5621.20		
5582.93		
87.27		

Q	6.03	7N.16
T.P.	7.62	6.50
		63.66

44-3v-30	229.38	x	264.86
S 6-4v-30 E	- 1.80		3.57
S 37-50-00 W	227.58	x	261.29
5v-5v-30	+ 1v.80		+ 1v.73
90-42-30	240.38	x	274.02
179-59-60	0.50		- 0.75
S 89-17-30 E	239.88	x	273.27
4-01	+ 13.19		+ 1v.4v
S 85-16-30 E	53.07	x	285.69
22-31-15	1.15		0.45
S 62-45-15 E	251.82	x	285.24
20-20	11.87		1v.47
S 83-05-15 E	63.69	x	297.71
9v-29	2.30		1.04
175-34-15	261.39	x	296.67
179-59-60	3.57		+ 12.17
N 4-25-45 E	264.96		308.26
83-51-59	468.39		- 1.24
83-51-59	288.37		306.60
167-43-48	180.02		+ 12.27
167-44	37.20		318.87
S 89-42-20 E	16.07		- 37
90	37.27		320.56
179-4v-20			+ 11.42
179-59-60			329.98
S 0-17-40 W	1403.99		- 58
13-26	273.89		329.40
S 13-43-40 W	1130.10		
v-58			
S 10-45-40 W			
19-33-30			
S 8-47-50 E			
1-09-30 x			
S 9-57-20 E			
8-48			
S 1-09-20 E			