U.S. Army Corps of Engineers Office
Calif. Dist. San Diego, Cal.

TRANSIT

398

F.B. 367

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Table showing the difference of latitude and departure in running 80 chains at any course from 1 to 60 minutes.

MINUTES.	LKS.	MINUTES.	LKS.	MINUTES.	LKS.
1	2⅓	21	49	41	95⅔
2	4⅔	22	51⅓	42	98
3	7	23	53⅔	43	100⅓
4	9⅓	24	56	44	102⅔
5	11⅔	25	58⅓	45	105
6	14	26	60⅔	46	107⅓
7	16⅓	27	63	47	109⅔
8	18⅔	28	65⅓	48	112
9	21	29	67⅔	49	114⅓
10	23⅓	30	70	50	116⅔
11	25⅔	31	72⅓	51	119
12	28	32	74⅔	52	121⅓
13	30⅓	33	77	53	123⅔
14	32⅔	34	79⅓	54	126
15	35	35	81⅔	55	128⅓
16	37⅓	36	84	56	130⅓
17	39⅔	37	86⅓	57	133
18	42	38	88⅔	58	135⅓
19	44⅓	39	91	59	137⅔
20	46⅔	40	93⅓	60	140

TABLE FOR RUNNING ON SLOPES.

In the following table, the first column shows the angle, the second the number of links to be added to a chain on the slopes, to make one chain, horizontal measurement.

MICROFILMED
DEC 17 1964

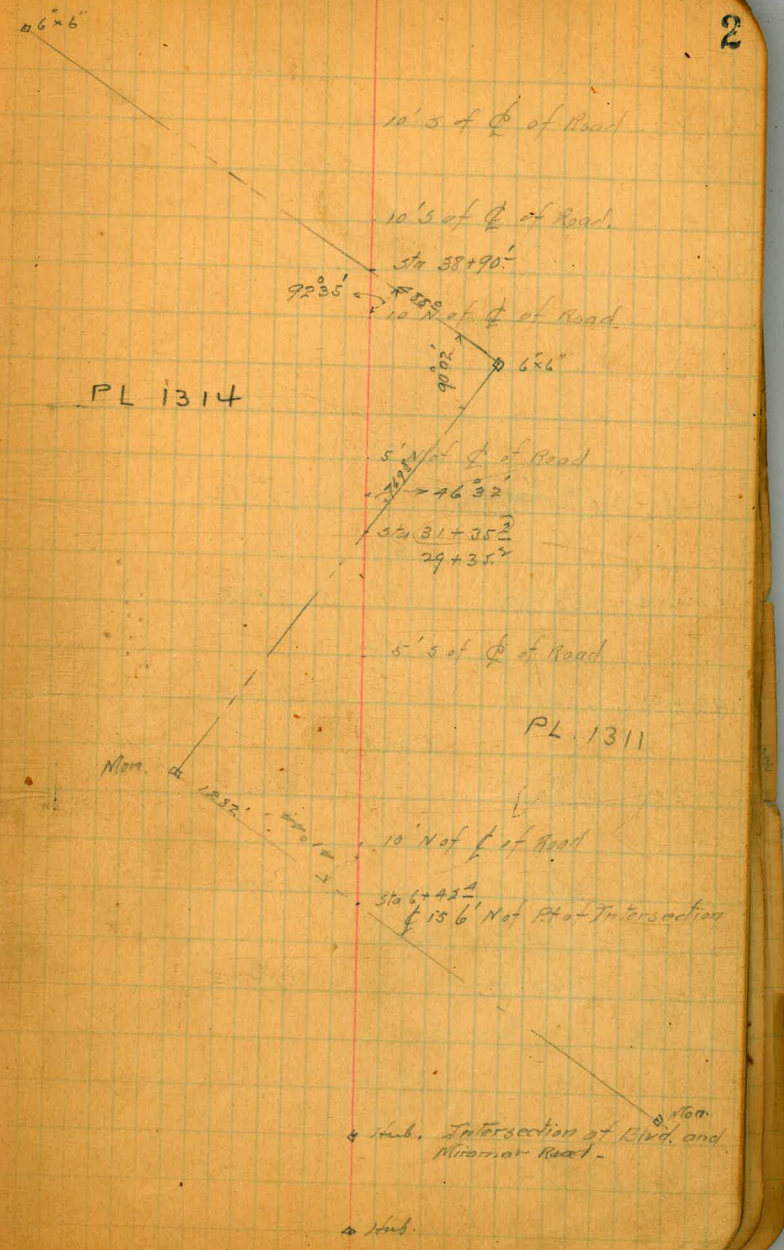
ANGLE	COR. IN LINKS	ANGLE	COR. IN LINKS	ANGLE	COR. IN LINKS	ANGLE	COR. IN LINKS
°		°		°		°	
4	0.24	11	1.88	18	5.14	25	10.54
5	0.38	12	2.24	19	5.76	26	11.26
6	0.55	13	2.63	20	6.42	27	12.24
7	0.76	14	3.06	21	7.11	28	13.37
8	0.98	15	3.53	22	7.85	29	14.34
9	1.24	16	4.02	23	8.64	30	15.47
10	1.55	17	4.56	24	9.47	35	22.07

367
29

Sta. Match Miramar Road
Sta. 3 Mont
to Thomas

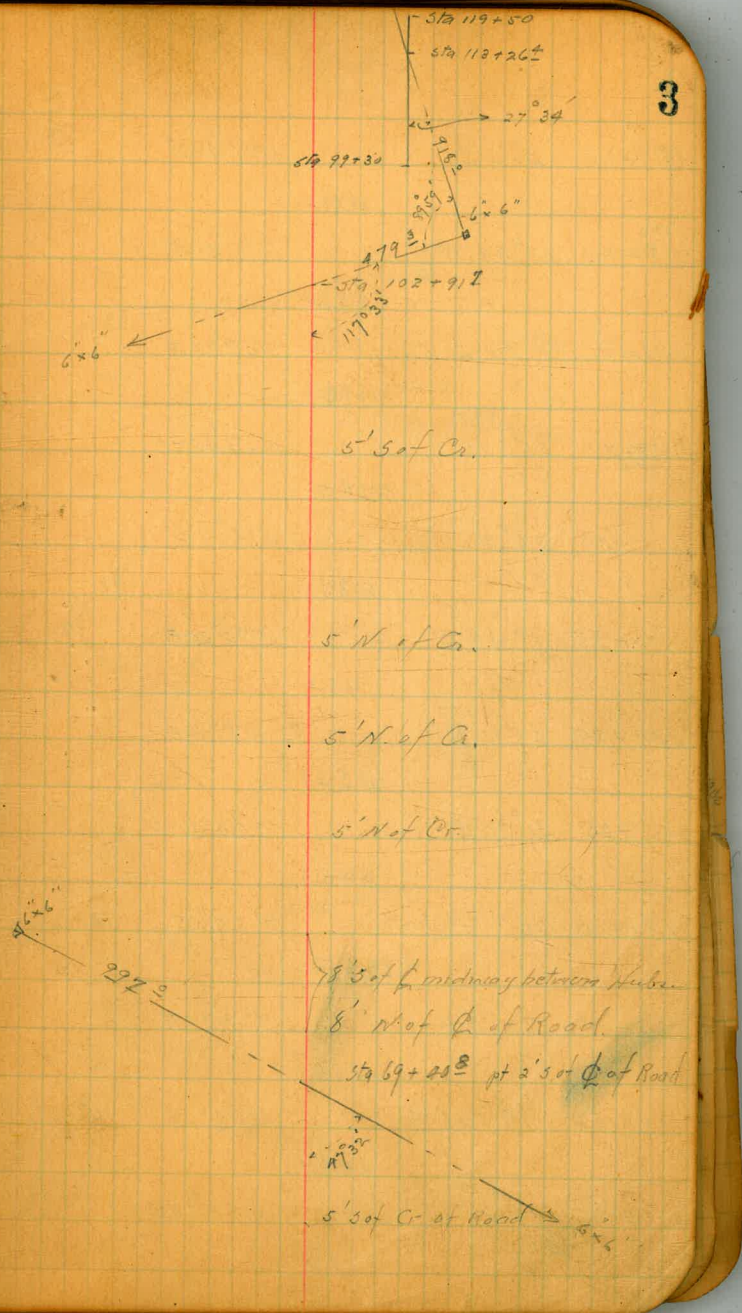
Sta.	Angle	Dist	Needle
53+00	16°40' L.		N43°20'E
		513.0	
47+87	18°40' L		N60°00E
		1065.0	
37+22	34°00'		N7°40'E
		367.0	
33+55	15°10' R.		N22°45E
		1019.0	
23+36	18°00' L		N29°30E
		1551.0	
7+85	19°25' R		N47°30E
		285.0	
5+00	13°40' R.		N27°30'E
		240.0	
2+60	14°26' R.		N14°00E
		260.0	
0+00 = Sta 157+51.7 of Blvd survey	3°20' R.		N0°30'W

Backsights on Sta 158+11.3

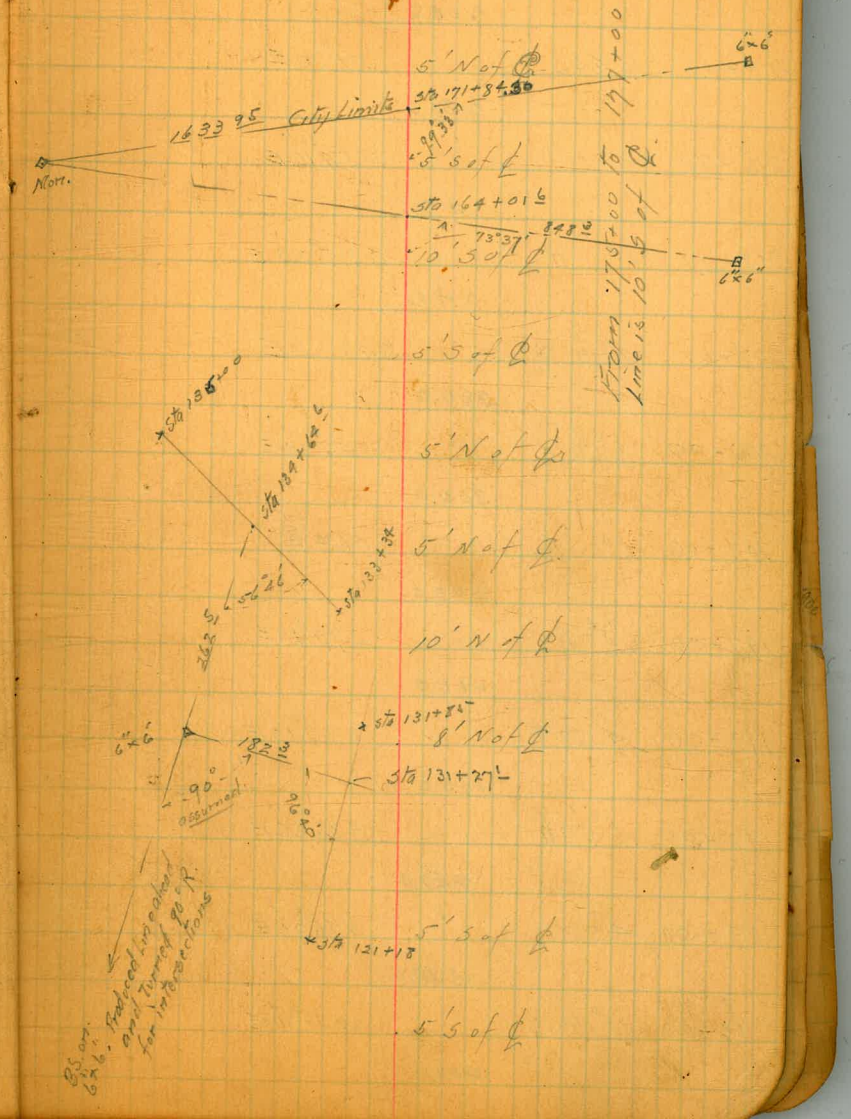


2

121+18	10°30' L		N68°20'E
		168.0	
119+50	23°45' L		N79°E
		2020.0	
99+30	11°20' L		S77°E
		150.0	
97+80	15°30' L		S65°40'E
		1185.0	
85+95	8°05' R		S50°00'E
		151.0	
84+44	19°30' R		S58°10'E
		159.0	
82+85	20°40' R		S77°20'E
		525.0	
77+60	19°45' R		N81°40'E
		428.0	
73+32	10°45' R		N62°20'E
		732.0	
71+00	18°20' R		N51°40'E
		1400.0	
57+00	9°45' L		N33°40'E
		400.0	



Sta.			
182+00	4°10'L		N66°40E
		400.0	
178+00	13°30'R		N70°40E
		900.0	
169+00	1°20'L		N57°30E
		1180.0	
157+20	26°30'L		N55°40E
		700.0	
155+20	22°50'L		N84°50E
		435.0	
150+85	19°40'R		57°20E
		105.0	
149+80	27°40'R		N88°10E
		455.0	
145+25	31°20'R		N60°40E
		675.0	
139+00	20° R.		N29°10E
		400.0	
135+00	8°50'L		N9°20E
		166.0	
133+34	30°20'L		N18°E
		149.0	
131+85	19°45'L		N48°30E
		1067.0	



221+00	13°30'L		S84°10'E	
		200.0		
219+00	16°40'L		S70°50'E	
		230.0		
216+70	19°L		S54°10'E	
		470.0		
212+00	7° R.		S35°30'E	
		240.0		
209+60	12°30' R.		S42°30'E	
		360.0		
206+00	8°50' R.		S55°10'E	
		300.0		
203+00	6°20' R.		S64°E	
		600.0		
197+00	6°40' R.		S70°10'E	
		400.0		
193+00	9°50' R.		S77°10'E	
		100.0		
192+00	16°50' R.		S86°30'E	
		250.0		
189+50	4°50' R.		N76°20'E	
		350.0		
186+00	5°10' R.		N71°30'E	
		400.0		

8' S of ℄

5' S of ℄

5' S of ℄

5' N of ℄

5' N of ℄

5' N of ℄

5' N of ℄

5' N of ℄

250+00

23.50.0

226+50 3°20'L N74°30'E

310.0'

228+90 18°40'L N77°0'E

240.0

221+00

4/15/10 Hotel Yorc. Washington St.
Nsare Thomas from west end to Jackdaw.

1377	4.80	280.40		275.60	SW Cor Lewis Pond, N 88 Spk in Pole
		Pueblo line			
N			7.2	273.2	
cb			7.1	273.3	
1/a			6.6	273.8	
c			6.5	273.9	
1/a			6.3	274.1	
cb			6.4	274.0	
S			6.1	274.3	
		75' E			
S			5.3	275.1	
cb			5.7	274.7	
1/a			5.1	275.3	
c			5.2	275.2	
1/a			5.6	274.8	
cb			5.6	274.8	
N			5.6	274.8	
		50 E			
N			5.1	275.3	
cb			4.6	275.8	
1/a			4.8	275.6	
c			4.8	275.6	
1/a			4.8	275.6	
cb			5.0	275.4	
S			5.0	275.4	

Washington St 50 ft, 10 Curbs.

		280.40			
		75' E			
S			5.1	275.3	
cb			5.2	275.2	
1/a			5.0	275.4	
c			4.6	275.8	
1/a			4.8	275.6	
cb			4.6	275.8	
N			4.7	275.7	
		100 E			
N			4.2	276.2	
cb			4.4	276.0	
1/a			4.7	275.7	
c			4.9	275.5	
1/a			5.1	275.3	
cb			5.2	275.2	
S			5.6	274.8	
		125' E			
S			6.2	274.2	
cb			5.7	274.7	
1/a			5.5	274.9	
c			5.3	275.1	
1/a			4.9	275.5	
cb			4.5	275.9	
N			4.1	276.3	

28040

150 E

N	4.4	276.0
cb	4.9	275.5
1/a	5.4	275.0
c	5.8	274.6
1/a	6.1	274.3
cb	6.3	274.1
S	6.7	273.7

1/3 E = W. Hooker (80 Street
14' Curbs

S	7.9	272.5
cb	7.2	273.2
1/a	6.7	273.7
c	6.1	274.3
1/a	5.8	274.6
cb	5.5	274.9
N	4.8	275.6

W cb. Hooker

N	5.4	275.0
cb	6.0	274.4
1/a	6.5	273.9
c	6.8	273.6
1/a	7.2	273.4
cb	7.6	272.8
S	7.5	272.9

28040

W 1/4 Hooker

S	8.0	272.4
cb	7.8	272.6
1/a	7.6	272.8
c	7.3	273.1
1/a	7.0	273.4
cb	6.5	273.9
N	5.8	274.6

Cr. Hooker

N	6.3	274.1
cb	6.9	273.5
1/a	7.5	272.9
c	7.8	272.6
1/a	7.9	272.5
cb	8.2	272.2
S	8.3	272.1

E 1/4 Hooker

N	6.8	273.6
cb	7.3	272.9
1/a	7.9	272.3
c	8.1	272.3
1/a	8.4	272.0
cb	8.6	271.8
S	8.7	271.7

Continued on P. 12

1 Sec for 75' St.

280.40

Pueblo Line

N	7.2
cb	6.9
1/c	6.6
c	6.5
1/c	6.1
cb	6.1
s	6.1

25' E

s	6.2
cb	6.3
1/c	5.3
c	5.2
1/c	5.3
cl	5.5
N	5.6

50' E

N	5.1
cb	4.5
1/4	4.7
c	4.8
1/4	5.0
cb	6.0
s	6.2

Intersection St. 75' 12 Curbs

75' 1

280.40

75' E

s	6.7
cb	6.0
1/c	5.1
c	4.8
1/c	4.7
cb	4.6
N	4.7

100' E

N	4.2
cb	4.4
1/4	4.9
c	5.1
1/c	5.5
cb	6.7
s	6.6

125' E

s	7.0
cl	6.9
1/c	6.3
c	5.9
1/c	5.3
cl	4.7
N	4.1

75'

280.40

160'E

N	4.3
cb	5.1
1/4	5.8
c	6.3
1/4	6.8
cb	7.6
c	7.7

178'E = Wh. Hooker (80' Street) 1/4 curbs.

S	8.5
cb	8.5
1/4	8.0
c	7.1
1/4	6.2
cb	5.5
N	4.8

W cb Hooker.

N	5.4
cb	6.2
1/4	6.8
c	7.4
1/4	7.5
cl	8.7
S	8.6

75'

280.40

W 1/4 Hooker

S	8.5
cb	8.6
1/4	8.0
c	7.7
1/4	7.5
cb	6.7
N	5.8

Cr. Hooker

N	6.2
cb	7.1
1/4	7.7
c	8.2
1/4	8.3
cb	8.7
S	8.6

E 1/4 Hooker

S	8.8
cb	8.9
1/4	8.7
c	8.6
1/4	8.1
cl	7.6
N	6.8

75'

28040

E Cb Hooker

N	7.4
Cb	8.1
1/4	8.5
C	8.9
1/4	9.1
Cb	9.2
S	9.1

E/ Hooker

S	9.5
Cb	9.5
1/4	9.3
C	9.3
1/4	8.9
Cb	8.5
N	8.1

25' E

N	9.0
Cb	9.4
1/4	9.6
C	9.8
1/4	9.9
Cb	9.9
S	9.7

75'

28040

50' E

S	9.8
Cb	10.0
1/4	10.2
C	10.3
1/4	10.3
Cb	10.3
N	10.0

75' E

N	10.8
Cb	10.8
1/4	10.8
C	10.6
1/4	10.1
Cb	9.8
S	9.5

100 E

S	9.6
Cb	9.9
1/4	10.5
C	10.9
1/4	11.4
Cb	11.7
N	11.7

		75'		
		280.40		
		126 E		
N			12.2	
cb			11.9	
1/a			11.3	
c			10.7	
1/a			10.2	
cb			9.7	
S			9.5	
		150 E		
S			9.6	
cb			9.8	
1/a			10.2	
c			10.9	
1/a			11.7	
cb			12.4	
N			12.8	
TP	360	270 39	12.61	267.79
		175 E		
N			3.6	
cb			3.4	
1/a			2.3	
c			1.5	
1/a			0.7	
cb			0.0	
S	Continued on P15		0.0	

Continued from P8

50 Street

270 40

E Cb Hooker

S	9.1	271.3
cb	8.9	271.5
1/a	8.8	271.6
c	8.5	271.9
1/a	8.3	272.1
cb	7.8	271.6
N	7.4	273.0
E L Hooker		
N	8.1	272.3
cb.	8.5	271.9
1/a	8.8	271.5
c	8.9	271.5
1/a	9.2	271.2
cb	9.2	271.2
S	9.4	271.0
25 E		
S	9.9	270.5
cb	9.8	270.6
1/a	9.7	270.7
c	9.6	270.8
1/a	9.9	271.0
cb	9.2	271.2
N	8.9	271.5

50'

280.40

50' E

N	10.0	270.4
cb	10.2	270.2
1/c	10.3	270.1
c	10.3	270.1
1/c	10.3	270.1
cb	10.3	270.1
S	10.2	270.2

75' E

S	10.1	270.3
cb	10.5	269.9
1/c	10.6	269.8
c	10.8	269.6
1/c	10.9	269.5
cb	11.3	269.1
N	10.8	269.6

100' E

N	11.8	268.6
cb	11.6	268.8
1/c	11.5	268.9
c	11.2	269.2
1/c	11.0	269.4
cb	10.8	269.6
S	10.5	269.9

50'

280.40

125' E

S	10.7	270.2
cb	10.5	269.9
1/c	10.8	269.6
c	11.4	269.0
1/c	11.7	268.7
cb	12.0	268.4
N	12.2	268.2

150' E

N	12.8	267.6
cb	12.3	268.1
1/c	11.9	268.5
c	11.4	269.0
1/c	11.0	269.4
cb	10.7	269.7
S	10.1	270.3

TP 260 270.39 1261 267.79

175' E

N	3.6	266.8
cb	3.6	266.8
1/c	3.0	267.4
c	2.4	268.0
1/c	1.9	268.5
cb	1.3	269.1
S	0.7	269.7

50'

270.39

300'E = W¼. Ingalls.

S	2.4	268.0
Sb	3.0	267.4
¼	3.6	266.8
a	4.1	266.3
¼	4.4	266.0
Sb	4.6	265.8
N	4.7	265.7

WCb. Ingalls.

N	5.2	265.2
Nb	5.2	265.2
¼	5.1	265.3
c	5.0	265.4
¼	4.6	265.8
Cb	4.2	266.2
S	3.7	266.7

NW ¼

S	5.5	264.9
Cb	5.6	264.8
¼	5.8	264.6
c	5.8	264.6
¼	5.9	264.5
Cb	5.9	264.5
N	5.9	264.5

50'

270.39

Qr

N	6.9	263.5
Cb	7.0	263.4
¼	7.0	263.4
c	7.0	263.4
¼	7.0	263.4
Cb	7.0	263.4
S	7.0	263.4

E ½

S	8.6	261.8
Cb	8.7	261.7
¼	8.5	261.9
c	8.3	262.1
¼	8.2	262.2
Cb	8.1	262.3
N	7.9	262.5

Ecb.

N	9.1	261.3
Cb	9.3	261.1
¼	9.5	260.9
c	9.7	260.7
¼	9.8	260.6
Cb	10.1	260.3
S	10.2	260.2

50'

270.39

E.L. Ingalls.

S	11.8	258.6
cb	11.2	259.2
1/a	11.1	259.3
c	10.9	259.5
1/a	10.6	259.8
cb	10.4	260.0
N	9.4	261.0
TP.	267.79	

See P. 18.

9 Hatch
16 Tunnel
10 Thomas. Continued From P. 12

75'

T.P. 0.93 268.72 267.79

200' E = W.L. Ingalls

N	3.1
cb	2.9
1/a	2.4
c	1.6
1/a	0.8
cb	0.0
S	0.6

W.Ch. Ingalls

S	2.3
cb	1.9
1/a	2.0
c	2.6
1/a	3.3
cb	3.6
N	3.5

W 1/4

N	4.2
cb	4.3
1/a	4.1
c	3.9
1/4	3.8
cb	3.7
S	3.9

75-1

268.72

Cr.

S		5.6
CB.		5.3
1/4		5.4
C		5.4
1/4		5.3
CB		5.3
N		5.3
	E 1/4	
N		6.3
CB		6.5
1/4		6.6
C		6.9
1/4		7.0
CB		7.0
S		7.2
	E CB.	
S		8.6
CB		8.6
1/4		8.5
C		8.3
1/4		8.1
CB		7.7
N		7.4

75'

268.72

EL Ingalls

N		7.8	
CB		8.6	
1/4		9.2	
C		9.5	
1/4		10.1	268.6
CB		10.0	268.7
S		9.7	269.0
	25' E		
S		13.7	255.0
CB		13.4	255.3
1/4		13.4	255.3
C		13.4	
1/4		13.9	
CB		11.2	
N		8.7	
	50' E		
N		9.2	259.5
CB		11.4	257.3
TP.	3.29	259.77	12.27	256.45
1/4		6.7	253.0
C		13.1	
1/4		15.6	244.1
CB		12.1	247.6
S		11.2	248.5

		75'			
		259.74			
		75' E			
N.			1.1	258.6	
cb			3.7	256.0	
1/a			9.0	249.7	
c			16.0		
1/a			22.4	237.3	
cb			26.0	233.7	
s			23.1	236.6	
		100' E			
s			32.0	227.7	
cb			26.4	233.3	
1/a			19.7	240.0	
c			16.2		
1/a			10.2		
cb			6.2		
N			3.2		
		125' E			
N			7.2		
cb			11.1		
~~TP~~	0.50	247.33	12.91	246.83	
1/a			2.4		
c			6.4		
1/a			13.2	234.1	
cb			17.1	230.2	
s			21.1	226.2	

		75'			
		247.33			
		135' E			
cb			23.4	223.9	
1/a			19.3	228.0	
c			15.7	231.6	
1/a			10.1		
cb			5.7		
N			1.5		
			2.2		
		150' E			
N			0.6		
cb			6.2		
1/a			9.0		
c			13.1		
1/a			20.1	227.2	
cb			18.8	227.0	
s			15.7	231.6	
		175' E			
s			2.0	245.3	
cb			6.2	241.1	
1/a			9.6	237.7	
c			15.6		
1/a			16.0		
cb			11.8		
N			6.6		

75'

247.33

190'E

N			7.4	
cb			10.0	
1/c			9.3	
c			5.8	
1/4			2.8	244.5
TP	10.87	256.24	19.6	245.37
cb			8.4	247.8
S			4.5	251.7

200'E

S			0.2	256.0
cb			3.6	252.6
1/4			5.9	250.3
c			9.5	
1/c			11.2	
cb			14.4	
N			12.2	

215'E = WL Jackdaw

N			+0.3	256.5
cb			8.3	
1/c			4.4	
c			2.2	
1/c			0.4	255.8
cb			+1.4	257.6
S			+2.0	258.2

50'

256.24

WL - Jackdaw

S			0.3	255.9
cb			2.0	254.2
1/c			3.1	253.1
c			4.3	251.9
1/c			6.5	249.7
cb			7.5	248.7
N			+0.8	256.5

15'W

N			12.2	244.0
cb			14.2	242.0
1/c			18.8	242.4
c			12.1	244.1
1/c			11.1	245.1
cb			8.9	247.3
S			6.0	N50 W
TP	3.13	248.50	10.87	245.37

25'W

S			4.0	244.5
cb			6.0	242.5
1/c			7.8	240.7
c			10.0	238.5
1/c			10.3	237.2
cb			9.7	238.8
N			8.6	239.9

		50'		
A1				
		248.50		
		90° W		
N			7.7	240.8
cb			11.7	236.8
1/c			15.2	233.3
c			17.0	231.5
1/c			17.7	230.8
cb			14.0	234.5
S			10.8	237.7
		65' W		
S			21.8	227.2
cb			15.5	233.0
1/c			13.0	235.5
c			10.3	238.2
1/c			8.1	240.4
cb			5.1	243.4
N			1.8	246.7
TP	11.10	259.34	0.26	248.24
		90° W		
N			7.0	252.3
cb			10.4	248.9
1/c			12.1	247.2
c			14.5	244.8
1/c			17.1	242.2
cb			19.2	240.1
S			25.2	234.1

		50'		
		259.34		
		115° W		
S			19.8	239.5
cb			15.2	244.1
1/c			12.8	246.5
c			10.0	249.3
1/c			6.9	252.4
cb			5.3	254.0
N			2.8	256.5
		140° W		
N			0.8	258.5
cb			2.9	256.4
1/c			4.9	254.4
c			7.2	252.1
1/c			12.6	246.7
cb			16.6	242.7
S			22.2	237.1
		165° W		
S			15.0	244.3
cb			14.4	244.9
1/c			10.6	248.7
c			6.3	253.0
1/c			3.1	256.0
cb			1.5	257.8
TP	9.25	267.12	1.47	257.87
N			7.4	259.5

RR Spk
SW Cor Randolph & Lenora

	267.12		
	190' W		
N		7.1	260.0
b		8.9	258.2
1/c		11.2	255.9
c		12.6	254.5
1/a		12.8	254.3
a		12.2	254.9
S		11.8	255.3

215' W = E L. Ingalls see page 15

287	278.47		275.60 BM
183	276.22	408	274.39
244	265.83	12.83	263.39
214	255.37	12.60	253.23
1.22	243.84 H.I.	12.75	242.62

75' East of Ingalls

S line	H.I. 243.84	6.8	
+10		10.1	
+25 S		6.3	237.5
+50 S		6.2	237.6
	100' E of Ingalls		
S Line		4.2	
+25		16.0	227.8
+50		15.6	228.2
	125' E of Ingalls		
S. Line		9.8	
+25		18.0	225.8
+30		21.7	222.1
+50		14.2	229.6
	135' E of Ingalls		
S line		12.6	
+25		19.6	224.2
+50		11.8	232.0
	150' E of Ingalls		
S. line		16.6	
+15		17.5	
+25		13.2	230.6
+50		4.1	239.7

X Sec. Washington St from W. Line Ibis to W. Line Jackdaw

				NE Cor 15/8 Chalk's St
7	3.41	273.83		270.43 R.R. Spike
T.P	3.58	265.81	11.60	262.23

West Line Ibis

N	1.7	264.1
crb	2.6	263.2
W4	2.9	262.9
b	3.7	262.1
W4	4.6	261.2
crb	5.1	260.7
S	7.4	258.4
+25	14.6	254.2

25' W

+25	17.0	248.8
S	8.7	257.1
crb	6.4	259.4
W4	4.9	260.9
b	4.7	261.1
W4	3.8	262.0
crb	3.0	262.8
N	1.8	264.0

50' W

N	2.9	262.9
crb	3.9	261.9
W4	4.3	261.5
b	5.2	260.6
W4	6.1	259.7
crb	6.7	259.1
S	8.8	257.0
+25	16.6	249.2

75' W

S	8.0	257.8
crb	6.9	258.9
W4	6.3	260.5
br	5.4	260.4
W4	4.3	261.5
brk	4.0	261.8
N	3.1	262.7

100' W

N	3.5	262.3
crb	4.2	261.6
W4	4.7	261.1
cbr	5.4	260.4
W4	6.1	259.7
crb	6.5	260.3
S	7.2	258.5

265.81 HI

125' W

S			6.2	259.6
crb			5.5	260.3
¼			5.4	260.4
ctr			4.7	261.1
¼			4.1	261.7
crb			3.8	262.0
N			3.4	262.4

150' W

N			2.6	263.2
crb			2.8	263.0
¼			3.3	262.5
ctr			4.1	261.7
¼			4.9	260.9
crb			5.2	260.6
S			5.7	260.1

200' W

S			5.0	260.8
crb			4.3	261.5
¼			4.1	261.7
ctr			3.7	262.1
¼			3.2	262.6
crb			2.9	262.9
N			2.4	263.4
T.P	1.28	263.34	3.75	262.06

263.34 HI

216.3' = E.L. Jackdaw ST

N	1.5	261.8
crb	1.7	261.6
¼	1.7	261.6
ctr	2.0	261.3
¼	2.3	261.0
crb	2.3	261.0
S	2.4	260.9

2' W of E line Jackdaw

S	3.2	260.1
crb	2.9	260.4
¼	3.0	260.3
ctr	3.7	259.6
¼	4.0	259.3
crb	4.1	259.4
N	4.5	258.8

E crb

N	5.1	258.2
crb	5.0	258.3
¼	4.9	258.4
ctr	4.3	259.0
¼	4.1	259.2
crb	3.7	259.6
S	3.9	259.4

263.34 H1

E. ¼

S	4.1	259.2
crb	4.1	259.2
¼	4.2	259.1
ctr	4.7	258.6
¼	5.2	258.1
crb	5.3	258.0
N	5.5	257.6

ctr line

N	5.4	257.9
crb	5.4	257.9
¼	5.2	258.1
ctr	4.9	258.4
¼	4.2	259.1
crb	4.2	259.1
S	4.3	259.0

W. ¼

S	4.7	258.6
crb	5.0	258.3
¼	5.3	258.0
ctr	6.5	256.8
¼	7.2	256.1
crb	7.0	256.3
N	6.3	257.0

263.34 H1

W. crb

N	7.4	255.9
crb	8.3	255.0
¼	8.0	255.3
ctr	7.1	256.2
¼	6.1	257.2
crb	5.7	257.6
S	5.5	257.8

West Line Jackdaw

S	7.4	
crb	8.4	
¼	9.8	
ctr	11.9	
¼	13.7	
crb	11.6	
N	6.7	

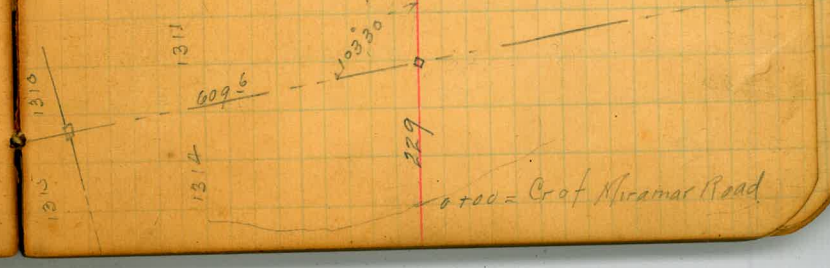
3/25/18 Rose Canon Road

Sta. | R | L | Cal. Courses | Mag.

Sta.	R	L	Cal. Courses	Mag.
			S. 14°28' W	
32+45	5°40'			N 15°30' E
		341		
			S. 8°48' W.	
+27.30 A	P.I. N. Line 1899		Sta. 19+47.32	
29+00	16°			N 10° E
		257	S. 7°12' E.	
26+43		14°		N 6° W
		266		
			S. 0°48' W.	
23+77		19°30'		N 8° E
		931.7		
			S. 12°42' E.	
14+45.30		26°13'		N 11°40' W
11+80.42 = 64.88				
		1216.3		
			S. 13°31' W.	
2+29				
0+00				N 14°30' E

98°48' LT to N.E. Cor. 1899.

See old survey by Ramsey FB 124 - p32



	R	L		
58+00	16°			N 44° W
56+80.50 = P.I. Sta. 11+46.50			E. ½ S. Line 1299	
55			S. 21° 47' E.	
54+00	9° 30'			N 20° 40' W
			S. 31° 17' E.	
51+00		15°		N 30° 10' W
			S. 16° 17' E.	
45+45	0° 50'			N 15° 10' W
			S. 17° 07' E.	
43+59		3° 20'		N 16° W
			S. 18° 47' E.	
40+00	1° 15'			N 12° 50' W
			S. 16° 02' E.	
37+28		21° 20'		N 14° W
			S. 6° 18' W.	
35+00	7° 30'			N 7° 30' E.
			S. 1° 12' E.	
34+00		15° 40'		N 0° 20' E.
				N 15° 30' E.

68° 13' Lt. to Sec. Line.

Sta	R	L	Mag
			S. 7°43' W.
70+00		10°45'	
			S. 18°28' W.
64+62		19°	N19°30' E
			S. 37°28' W.
63+00	28°		N38°30' E
			S. 9°28' W.
59+70	15°20'		N10°40' E
			S. 5°52' E.

N 15° 30' E

1/19/25 Grosfort Relocation of a Portion of Rose Canon Road

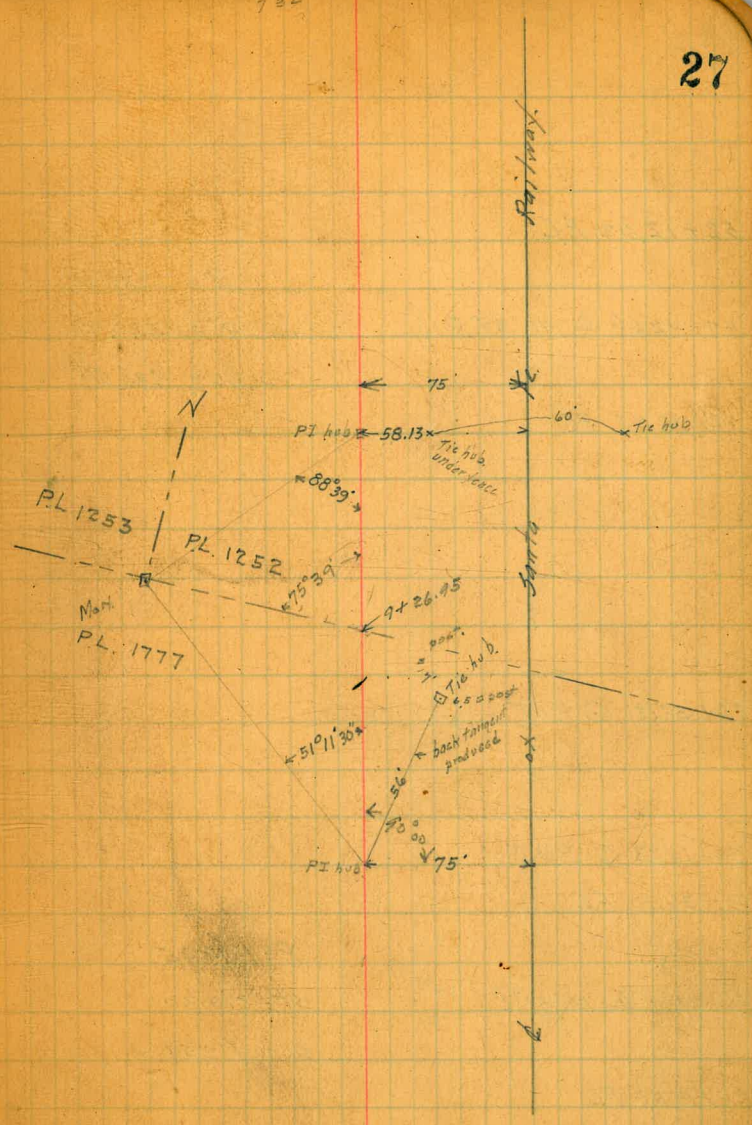
16+36.36 P.O.T.

12+93.51 E.C. R = 1221.28
11+33.17 Δ 15°08 R. St = 162.23
9+70.94 P.C. Lc = 322.57

9+26.95

6+91.32 E.C. R = 300
5+52.60 Δ 58°44' L. St = 168.81
3+83.79 P.C. Lc = 307.53

0+00 is at hair pin turn



52+12.07 E.C.

47+42.66 Δ 46°50' R

R = 1221.28

St = 528.91

Lc = 998.27 ✓

42+13.75 PC

30+58.81 ⊙ P.O.T.

29+14.23 ⊙ POT

28+36.10 E.C.

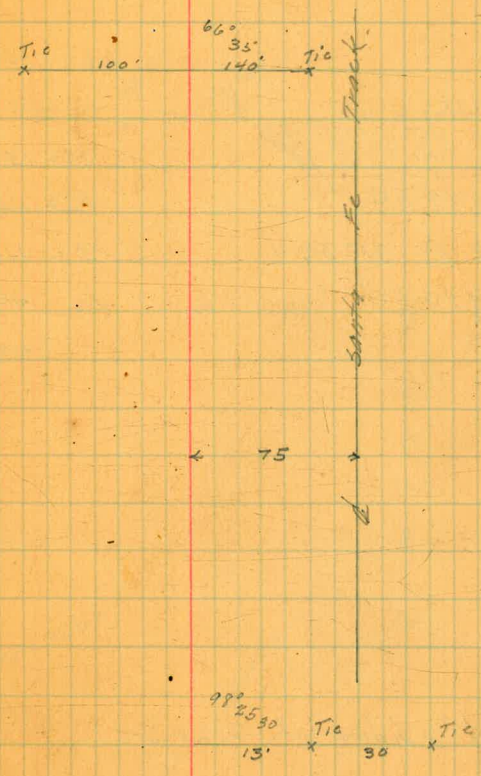
R = 1419.95

26+28.81 Δ 16°51' L

St = 210.30

Lc = 417.59 ✓

24+18.51 PC.



72+25 ⊙ P.O.T.

64+68.88

64+60.77 E.C.

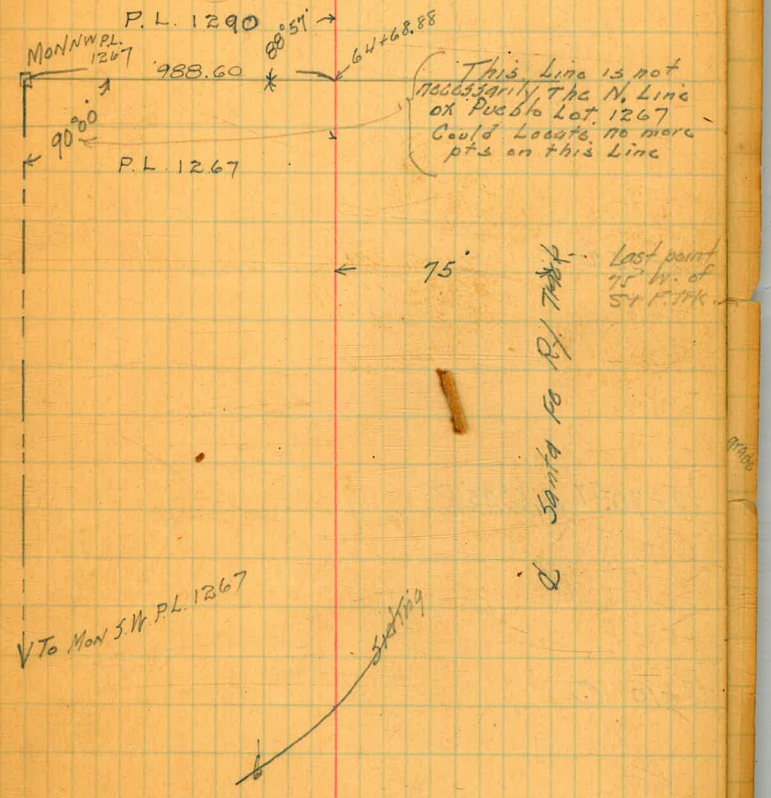
63+52 △ 31°52' L

62+37.80 P.C.

Ex = 15.98
R = 400.
St = 114.20
Lc = 222.47

53+75.4 = Siding into brickyard.

52+86.30 ⊙ POT.



85+25 24 ⊙

79+70 57 Δ 6°25' R.

78+10 ⊙

76+50 ⊙

L Levels on Location shown on page 27

			B.M. on Tel. pole @ 0+65		assumed B.M.
	10.65	110.65		100.00	
300' W. of 0+00			5.0	105.65	
200 " " "			4.1	106.55	
100 " " "			3.3	107.35	
0+00			1.19	109.46	
+25			7.9	102.75	
+55			14.5	96.15	
T.P.	0.13	100.13	10.65	100.0	
+72			5.6	94.53	
+75			9.4	90.73	
	24" culv. here				
+82			9.7	90.43	
+85			5.1	95.03	
+92			4.6	95.53	
1			8.7	91.43	
+02.0			8.7	91.43	
+06.0			5.6	94.53	
+11			5.2	94.93	
+50			6.5	93.63	
+75			6.8	93.33	
2			7.6	92.53	
+50			10.1	90.03	
3			12.6	87.53	
T.P.	0.12	88.33	11.92	88.21	
+50			3.2	85.13	
+90.61			4.9	83.43	
4+50			7.1	81.23	
5			8.3	80.03	
+50			10.1	78.23	
6			11.5	76.83	
T.P.	1.80	78.70	11.43	76.90	
+37			3.0	75.7	
+42			5.4	73.3	
+47			3.2	75.5	
+55			3.0	75.7	
7			4.0	74.7	
B.M. 35' R. of Sta 7 Top of Fence post			3.77		
+50			5.5	73.2	
8			7.6	71.1	
+50			9.0	69.7	
9			9.2	69.5	
	18" culvert				
+50			8.9	69.8	
10			7.8	70.9	
+50			7.1	71.6	
11			6.0	72.7	
B.M. on PI hub 11+33.17			5.01		
+50			5.0	73.7	
12			3.4	75.3	
+50			1.6	77.1	
13			1.3	77.4	

T.P.	1.22	89.39	1.53	77.17
+50			10.8	78.59
14			9.0	80.39
+50			7.6	81.79
15			6.7	82.69
+50			6.1	83.29
16			5.1	84.29
+36.36 POT.			5.10	84.29 on hub.
B.M. on pole 25' R. of 16+50			5.83	
+50			4.8	84.59
17			5.6	83.79
+50			6.1	83.29
18			6.5	82.89
+50			9.0	80.39
19			10.3	79.09
+50			13.1	76.29
20			16.4	72.99
+50			17.3	72.09
21	24" pipe		17.8	71.59
+50			17.5	71.89
22			16.3	73.09
+25			15.3	74.09
+50			11.9	77.49
+90			10.7	78.69
+95			11.4	77.99
23			10.8	78.59
+20			9.5	79.89
+50			9.0	80.39
24			8.2	81.19
B.M.	10.93	94.91	5.41	89.98 top of post. nail in
+18.51 P.C.			13.3	81.61
+50			12.8	82.11
25			12.3	82.61
+50			11.7	83.21
26			9.9	85.01
+50			8.5	86.41
27			6.9	88.01
+50			6.0	88.91
28			4.6	90.31
+36.10 E.C.			4.1	90.81
29			2.5	92.41
+50			1.0	93.91
30			0.0	94.91
T.P.	1.16	95.56	0.51	94.40
+58.51			0.0	95.56
31			0.8	94.76
+50			1.8	93.76
32			2.4	93.16
+50			3.0	92.56
33			4.2	91.36

		95.56			
+50			5.1	90.46	
34			6.3	89.26	
+50			7.6	87.96	
35			7.8	87.76	
+50			7.6	87.96	
Set B.M.			6.96		Top of Culvert Head wall on R.R. SW. cor
36 = Fence = P.L. 24" pipe Set R.W. hub on P.L.			8.4	87.16	
36+01.20 = P.L. 12.67 12.57 Seepage			8.2	87.36	
+50					
37			7.8	87.76	
+50			6.7	88.86	
38			5.6	89.96	
+50			4.4	91.16	
39			2.6	92.96	
T.P.	12.56	106.15	1.97	93.59	
+50			11.1	95.05	
40			9.4	96.75	
+50			7.8	98.35	
41			6.9	99.25	
+50			6.1	100.05	
42			8.0	98.15	
+13.75 P.C.			8.49	97.66	
+50			6.2	99.95	
+52			6.9	99.25	
+56	4'x4' box		5.3	100.85	
+60			6.4	99.75	

43			6.7	99.45	
+50			6.4	99.75	
44			4.8	101.35	
+50			1.8	104.35	
T.P.	0.96	107.08	0.03	106.12	
45			0.9	106.18	
+50			0.1	106.98	
46			0.3	106.78	
+50			0.9	106.18	
47			3.3	103.78	
+50			5.3	101.78	
48			8.0	99.08	
+50			9.4	97.68	
49			10.8	96.28	
+60			11.7	95.38	
+70			13.3	93.78	
T.P.	3.45	97.65	12.88	94.20	
+82	creek		12.2	85.45	
50+00			11.6	86.05	
+05.0			6.9	90.75	
+20			3.3	94.35	
+50			3.1	94.55	
51			3.0	94.65	
+50			3.1	94.55	

52.			2.3	95.35	
B.M.	10.90	107.26	1.29	96.36	nail in pole 25' Pt. ±X52+
+ 12.02 = EC			11.9	95.36	
+44			10.7	96.56	
+62			6.9	100.36	
53			7.0	100.26	
+20			7.0	100.26	
+75.4 = ℄ Railway Spur			8.5	98.76	
Top of rail			8.12		
54			8.1	98.16	
+35			7.4	99.86	
+50			8.3	98.96	
+80			8.0	99.26	
55+05 in oil Tank.			6.0	101.26	= Ground
+25			7.4	99.86	
+50			6.7	100.56	
56			6.8	100.46	
+50			6.3	100.96	
57			6.0	101.26	
+40 = creek			11.6	95.66	
+65 = "			11.0	96.26	
+85			6.6	100.66	
58			5.1	102.16	
+50			0.9	106.36	
T.P.	1150	118.57	0.19	107.07	

+85			10.7	107.87
+90			13.8	104.77
59			13.2	105.37
+050			9.5	107.07
59+50			7.3	111.27
+54			8.3	110.27
+55			10.1	108.47
+60	36" pipe		11.6	106.97
+65			9.4	109.17
+75			5.5	113.07
60			4.9	113.67
+25			4.2	114.37
61			4.7	113.87
+25			4.3	114.27
+50			2.2	116.37
B.M.	9.12	127.29	0.40	118.17 Top of Post Pt. ±X 61+3
62			5.3	121.99
+25			2.8	124.49
+50 = P.O.T.			1.5	125.79
63			1.8	125.49
+50			3.2	124.09
64			4.0	123.29
+25			3.0	124.29
+54			3.5	123.79
+60 ⌀ 8.23 E.C.		131.39	4.13	123.16 on Stub

		131.39		
+80		7.7	123.69	
+90		8.8	122.59	
65		8.9	122.49	
+18		8.9	122.49	
+70	30" pipe	12.6	118.79	
66		12.0	119.39	
+25		10.5	120.89	
67		10.5	120.89	
+64		11.3	120.09	
68		13.3	118.09	
+50	16" pipe	13.3	118.09	
69		12.7	118.69	
+50		12.7	118.69	
+73		12.5	118.89	
70		10.9	120.49	
+20		9.7	121.69	
+60		9.4	121.99	
+75		8.4	122.99	
71		4.8	126.59	
+15		2.5	128.89	
T.P.	10.10	140.72	0.77	130.62
+50			7.7	133.02
+85			4.4	136.32
+95			3.8	136.92
72			4.4	136.32

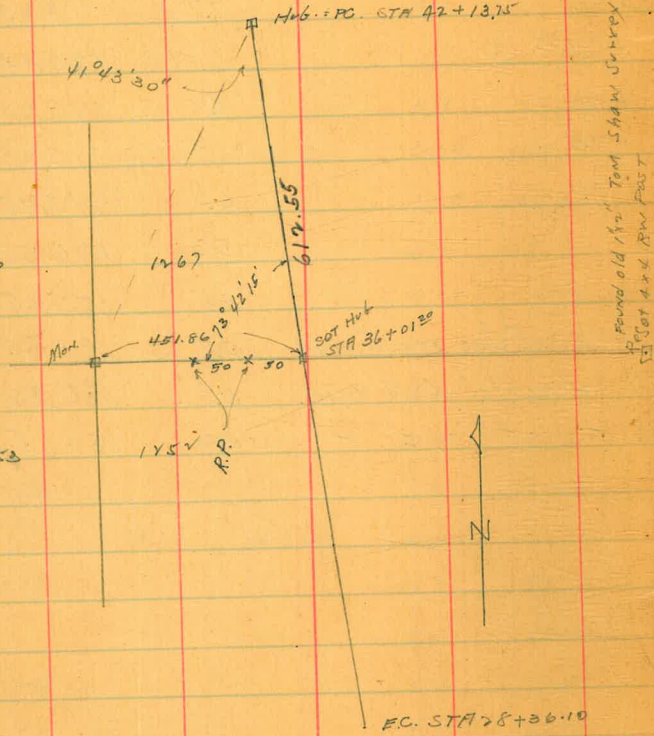
+050			5.7	135.02
+08.0			5.4	135.32
+12			3.8	136.92
+25	2.85	141.22	2.35	138.87 on hub
+45			1.6	139.62
+75 = Fence Line			3.3	137.92
73.			3.9	137.32
+45			5.3	135.92
+55			5.0	136.22
+70			5.9	135.32
74			6.5	134.72
+50			10.4	130.82
75	16" pipe		10.7	130.52
+50			9.4	131.82
+75			7.2	134.02
+90			5.3	135.92
76			4.8	136.42
+20			3.5	137.72
+50 ⊗			3.36	137.86
+67			3.7	137.52
+90			1.8	139.42
77			1.4	139.82
T.P.	8.63	149.22	0.63	140.59
+50			7.3	141.92
78			3.4	145.82

+04.0 = Xence line	3.5	145.72	
+10 ⊙	3.65	145.57	on hub
+50	6.1	143.12	
79	7.8	141.42	
+20 NB 16" pipe	6.7	142.52	
+50	3.4	145.82	
+70.57 △	1.37	147.85	
80	0.7	148.52	
TP 7.01 156.20	0.03	149.19	
+14.90 ⊙	7.85	148.35	on hub
+60	4.9	151.3	
81	9.2	147.0	
+15 16" pipe	9.6	146.6	
+50	8.0	148.2	
82	3.4	152.8	
+10	1.0	155.2	
TP 13.14 169.34	0.00	156.20	
+75	11.2	158.14	
83	9.4	152.94	
+26	6.0	163.34	
+30	8.6	160.74	
+35	13.6	155.74	
+40 48" pipe	13.2	156.14	
+55	3.9	165.44	
+60	3.2	166.14	

84	2.8	166.54	
+10	2.2	167.14	
TP 1241 181.75	0.0	169.34	
+50	10.2	171.55	
+80	8.1	173.65	
85	7.7	174.05	
+25.9 ⊙	6.61	175.14	
+50	6.7	175.05	
+75	6.7	175.05	
+84	6.0	175.75	
86	5.2	176.55	
+15	4.5	177.25	
+45 = Edge of old road	0.7	181.05	
87 = center of old road.	0.8	180.95	
88 = " " "	0.6	181.15	Use for grade

Rose Canon Road Survey 4/10/26
Pueblo Line Ties Thru Lots 1267/1252
Moore

see page 37



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TRAVERSE TABLE FOR TRANSIT BOOK.

From 1° to 90° for a distance of 100.

Degrees.	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		Degrees.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	
0			100.00	0.44	100.00	0.87	99.99	1.31	89
1	99.98	1.75	99.98	2.18	99.97	2.62	99.95	3.05	88
2	99.94	3.49	99.92	3.93	99.91	4.36	99.88	4.80	87
3	99.86	5.23	99.84	5.67	99.81	6.10	99.79	6.54	86
4	99.76	6.98	99.73	7.41	99.69	7.85	99.66	8.28	85
5	99.62	8.72	99.58	9.15	99.54	9.58	99.50	10.02	84
6	99.45	10.45	99.41	10.89	99.36	11.32	99.31	11.75	83
7	99.25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	82
8	99.03	13.92	98.97	14.35	98.90	14.78	98.84	15.21	81
9	98.77	15.64	98.70	16.07	98.63	16.50	98.56	16.93	80
10	98.48	17.36	98.40	17.79	98.33	18.22	98.25	18.65	79
11	98.16	19.08	98.08	19.51	97.99	19.94	97.90	20.36	78
12	97.81	20.79	97.72	21.22	97.63	21.64	97.53	22.07	77
13	97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	76
14	97.03	24.19	96.92	24.62	96.81	25.04	96.70	25.46	75
15	96.59	25.88	96.48	26.30	96.36	26.72	96.25	27.14	74
16	96.13	27.56	96.00	27.98	95.88	28.40	95.76	28.82	73
17	95.63	29.24	95.50	29.65	95.37	30.07	95.24	30.49	72
18	95.11	30.90	94.97	31.32	94.83	31.73	94.69	32.14	71
19	94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	70
20	93.97	34.20	93.82	34.61	93.67	35.02	93.51	35.43	69
21	93.36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	68
22	92.72	37.46	92.55	37.86	92.39	38.27	92.22	38.67	67
23	92.05	39.07	91.88	39.47	91.71	39.87	91.53	40.27	66
24	91.35	40.67	91.18	41.07	91.00	41.47	90.81	41.87	65
25	90.63	42.26	90.45	42.66	90.26	43.05	90.07	43.44	64
26	89.88	43.84	89.69	44.23	89.49	44.62	89.30	45.01	63
27	89.10	45.40	88.90	45.79	88.70	46.17	88.50	46.56	62
28	88.29	46.95	88.09	47.33	87.88	47.72	87.67	48.10	61
29	87.46	48.48	87.25	48.86	87.04	49.24	86.82	49.62	60
30	86.60	50.00	86.38	50.38	86.16	50.75	85.94	51.13	59
31	85.72	51.50	85.49	51.88	85.26	52.25	85.04	52.62	58
32	84.80	52.99	84.57	53.36	84.34	53.73	84.10	54.10	57
33	83.87	54.46	83.63	54.83	83.39	55.19	83.15	55.56	56
34	82.90	55.92	82.66	56.28	82.41	56.64	82.16	57.00	55
35	81.92	57.36	81.66	57.71	81.41	58.07	81.16	58.42	54
36	80.90	58.78	80.64	59.13	80.39	59.48	80.13	59.83	53
37	79.86	60.18	79.60	60.53	79.34	60.88	79.07	61.22	52
38	78.80	61.57	78.53	61.91	78.26	62.25	77.99	62.59	51
39	77.71	62.93	77.44	63.27	77.16	63.61	76.88	63.94	50
40	76.60	64.28	76.32	64.61	76.04	64.94	75.76	65.28	49
41	75.47	65.61	75.18	65.93	74.90	66.26	74.61	66.59	48
42	74.31	66.91	74.02	67.24	73.73	67.56	73.43	67.88	47
43	73.14	68.20	72.84	68.52	72.54	68.84	72.24	69.15	46
44	71.93	69.47	71.63	69.78	71.33	70.09	71.02	70.40	45
45	70.71	70.71							
Degrees.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Degrees
	DEGREES		¾ DEGREE.		½ DEGREE.		¼ DEGREE.		