STATE OF WISCONSIN
REPLY MESSAGE
FORM AD-16

INSTRUCTIONS TO SENDER:
REMOVE YELLOW COPY FOR YOUR FILE.
SEND REMAINDER OF FORM INTACT WITH CARBONS TO PERSON ADDRESSED.

TO: Langlade County Surveyor
Langlade County Court House
800 Clermont St.
Antigo, WI 54409

FROM: Ray Schewe
D.O.T. Box 777
Rhinelander, WI 54501

SUBJECT–MESSAGE

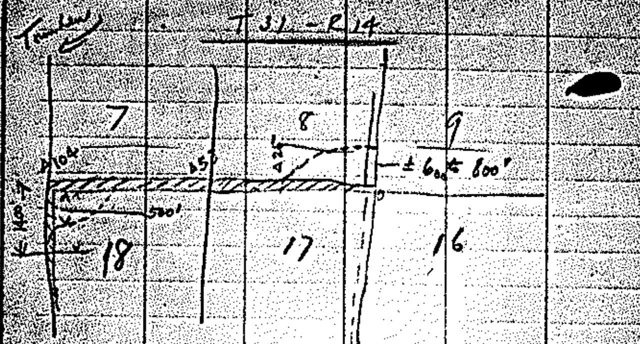
RECEIVED MAY 1 2 1992

attached are copies of survey book #1169, job 3393 page 43 thru end of job per your request.

REPLY

SIGNED Ray Schewe DATE 5-11-92

SIGNED _____ DATE _____



Levels run from 48 to 0 and then from 48 to 118. - Assume H.I. = 100 at 48. - Do not plot x-sections.

Plot on 2 sheets from 0 to 64 ① and 62 to 118+00 ② sheet 2

Dotted line shows proposed relocation.

Plot on wide paper so that relocation can be plotted in its correct position i.e. on sheet one plot plan top sheet & on sheet 2 plot plan lower part sheet.

8½ - 4
1 - 7
Second sheet completed. #242

LANGLADE - ELTON ROAD

Job #3023

Town ELTON - LANGLADE

Beginning corner common to $\frac{8|9}{17|16}$ thence westerly 164,00'± south 1400'.

G.H. Nickell	April 16-17	1917
Chas. Olsen	Fair - some snow on ground	
E.R. Johnson	" - dark at times	
Guy Johnson	4-16-17	9½ hrs
Glen "	4-17-17	10 hrs.

Am't Avail. = 2900± total = 6730.77

Work to be done - graded.

Soil = clay + heavy soil.

Traffic.

Material.

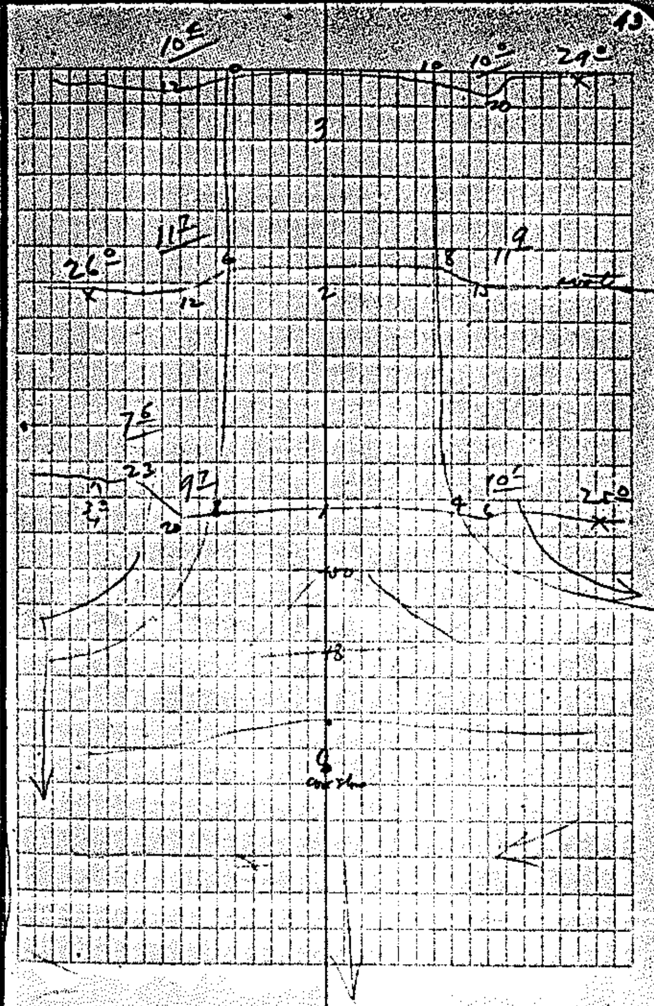
Present road - not much graded though some.

H.I. old. G.H.N. 4-18-17 - 1 hr.

Notes checked 4-24-17 - 15 min.

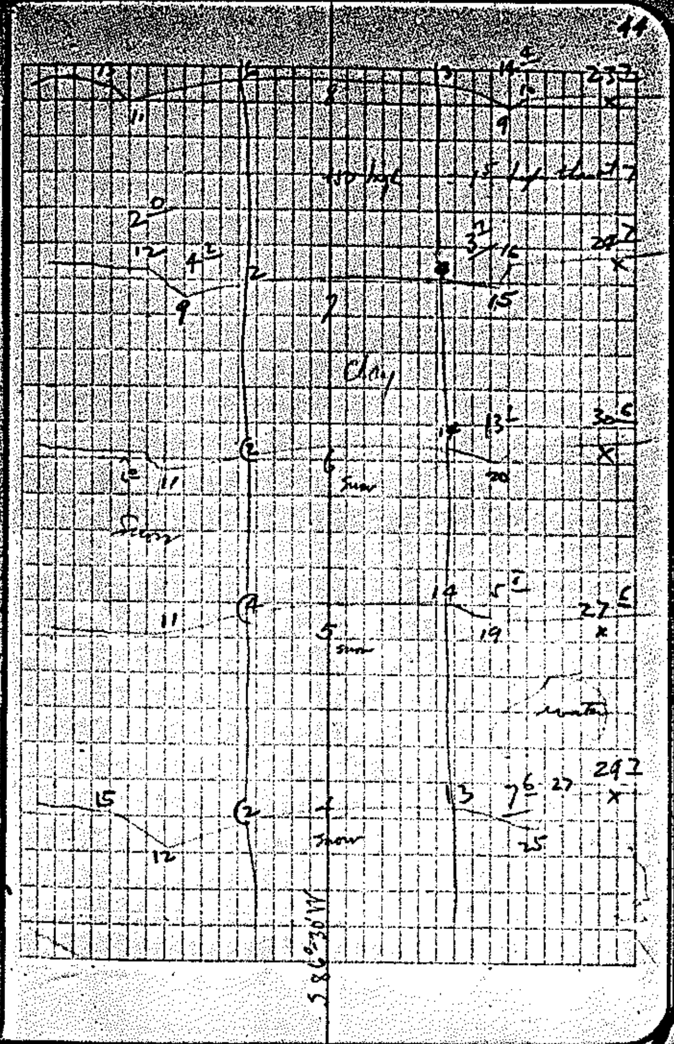
28.9.5

3	7.82 21.13	8.8	8.6 20.4 ✓
2	9.86 19.09	11.7	9.6 19.4 ✓
1	10.05 18.90	11.2	9.2 19.8 ✓
0	ar. stow: Sm.	9.40 19.55	10.1 = Grade. 18.91

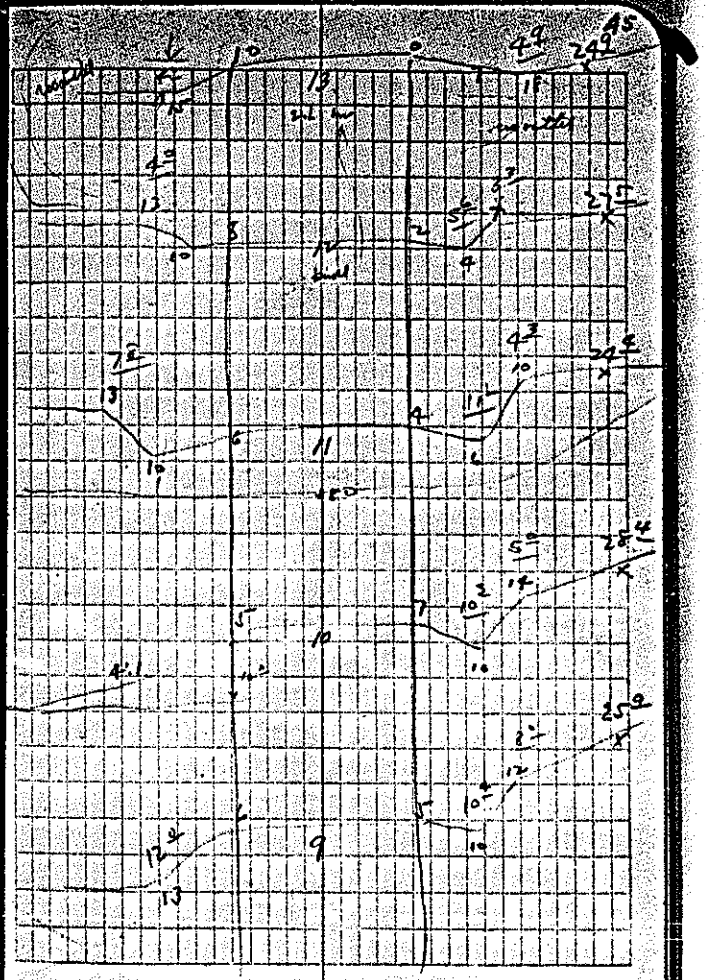


50.27 ✓

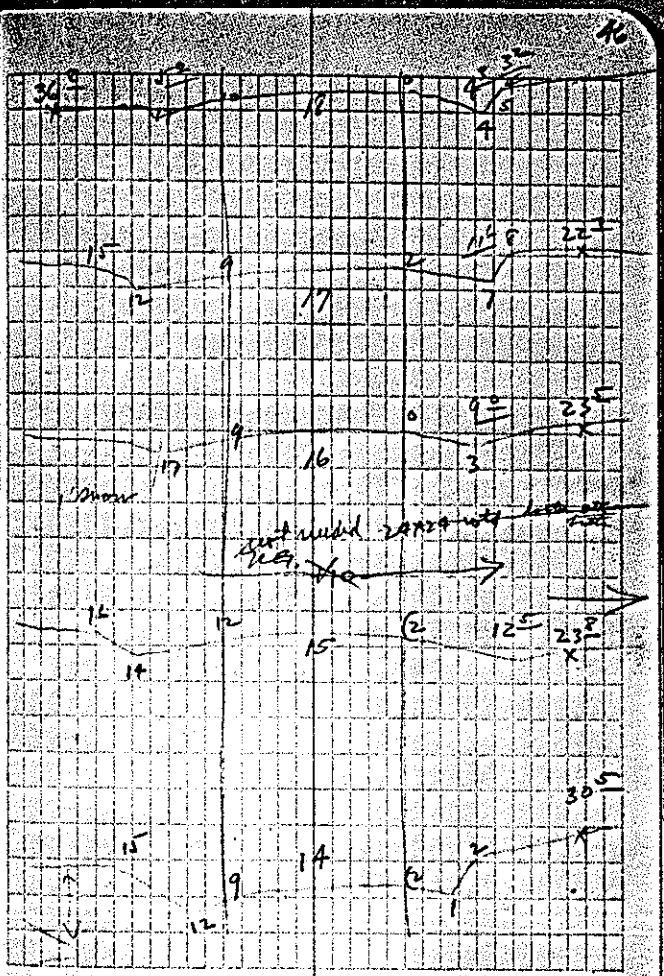
8	12.2 ✓ 38.1	13.5		13.1 37.2 ✓
T.P.	.36	**38.29**	11.62	38.65 ✓
7	.24 ✓ 37.55	1.9		3.6 34.7 ✓
6	11.58 ✓ 26.71	12.7		11.9 26.4 ✓
T.P.	2.55	**28.95**	11.89	26.40 ✓
5	4.84 ✓ 24.71	62		4.4 24.6 ✓
#4	4.42 ✓ 24.53	5-6		6.4 22.6 ✓

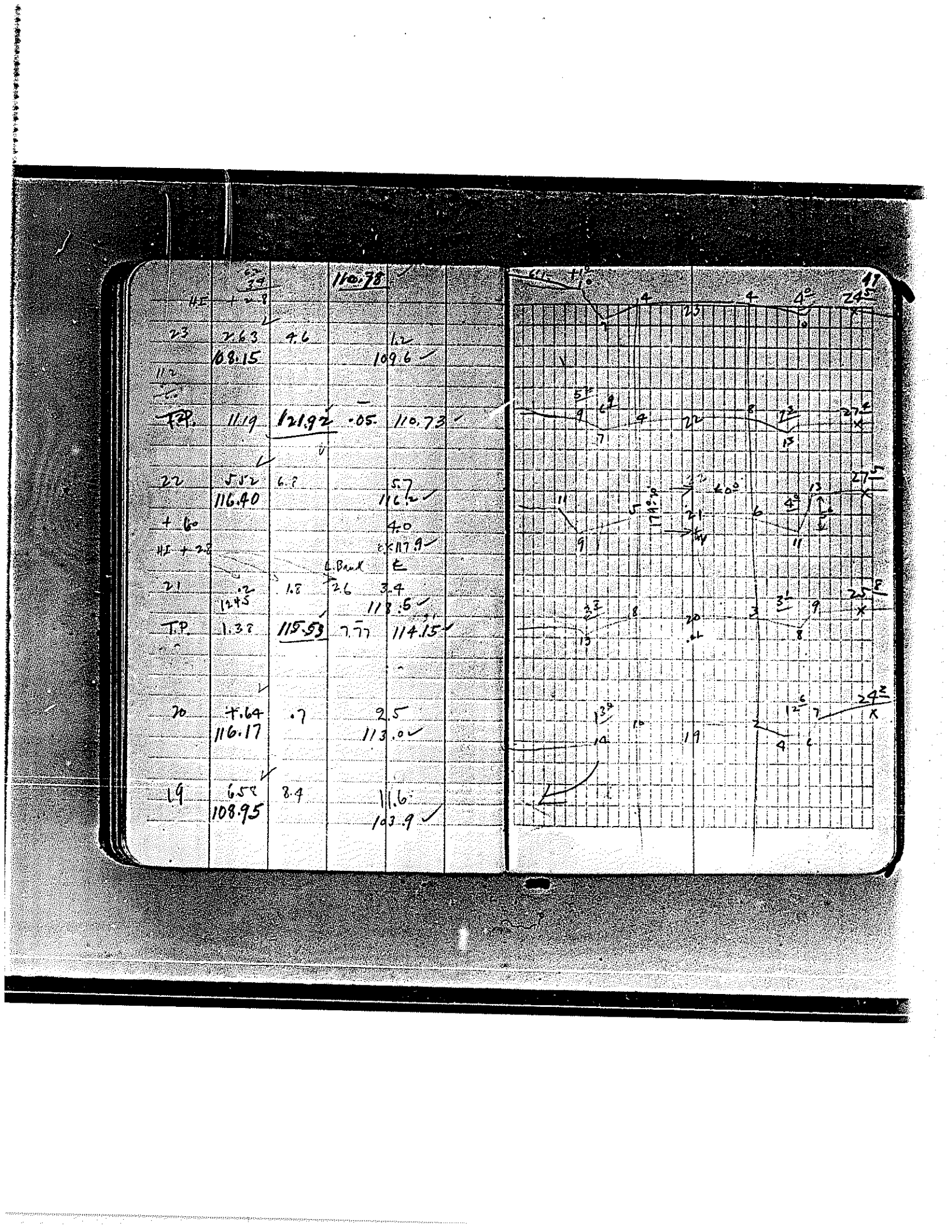


			81.72		
	+	✓		11.54	81.26
T.P.	1.81	71.69	11.54	69.88 ✓	
13	3.20 ✓	4.8		5.2	
	67.99			68.5 ✓	
12	.11 ✓	1.4		5.0	
	71.58			66.7 ✓	
	2.3 9.7				
11	2.9 ✓	4.1		10.7	
	68.8			61.0 ✓	
T.P.	+ .04	60.18 ✓	11.54	60.65 ✓	
10	.38 ✓	1.4		9.4	
	59.81			50.8 ✓	
T.P.	.66	50.27 ✓	10.58	49.61 ✓	
9	2.90 ✓	3.8		9	
	47.37			41.2 ✓	

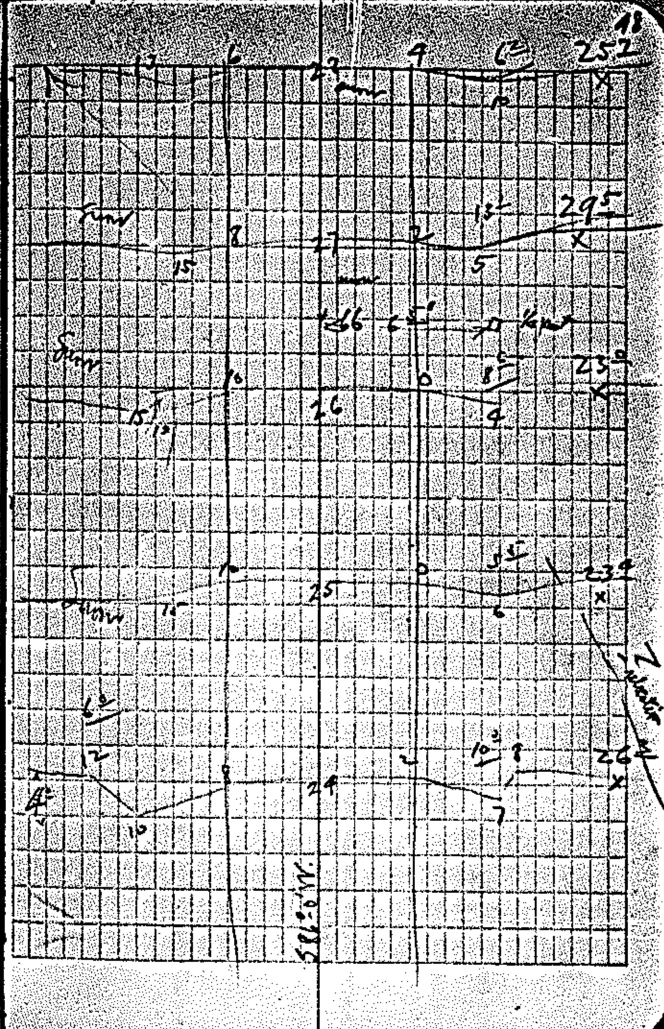


			115.53	
T.P.	.90	104.54	11.89	103.64
18	4.65	6.		3.7
	99.89			100.6
17	8.18	9.3		10.1
	96.36			94.4
T.P.	.32	92.86	12.00	92.54
16	8.16	9.2		7.6
	84.70			85.3
15	12.4	13.6		11.0
	80.5			81.9
	11.83 1.15			
14	12.98	13.6		
	79.88			12.83
T.P.	.35	81.72	11.49	71.49 81.37
		L.B.	R	RB
14 Contd.		2.8	5.0	5.4 3.4
			76.7	



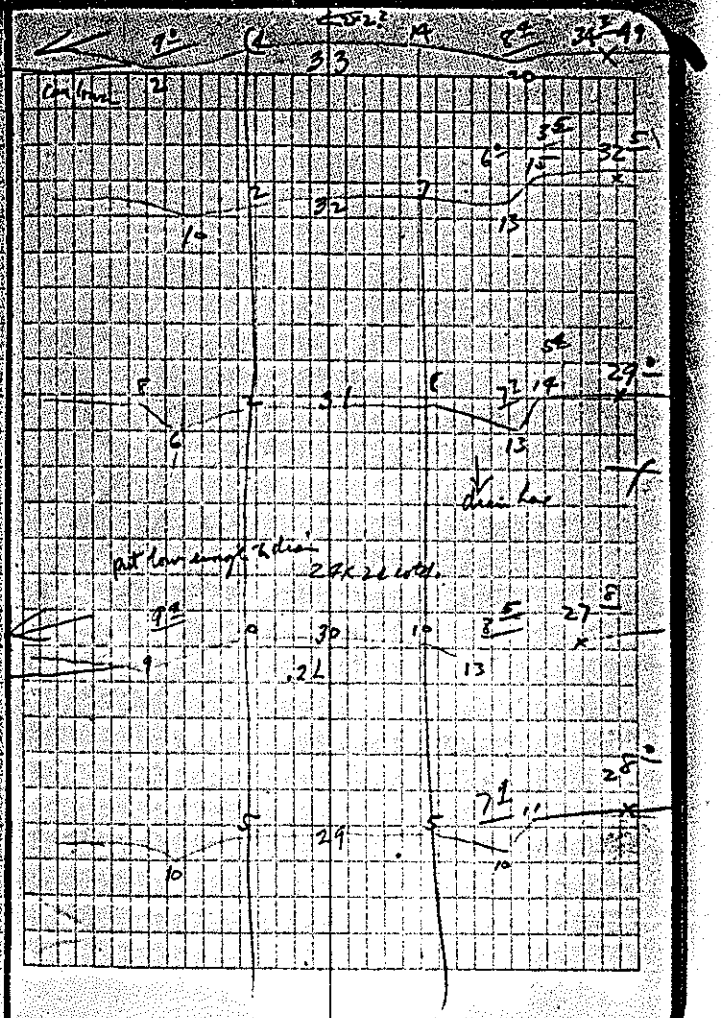


				88.97	
28	4.20	5.4		4.7	
	84.77			84.3	
T.P.	11.15	99.46	.66	88.31	
27	10.09	11.4		12.7	
	89.37			86.8	
26	5.95	7.5		7.6	
	93.51			91.9	
25	4.05	5.5		4.1	
	95.41			95.4	
T.P.	11.79	110.78	.47	98.99	
24	9.45	10.5		8.8	
	101.33			102.0	

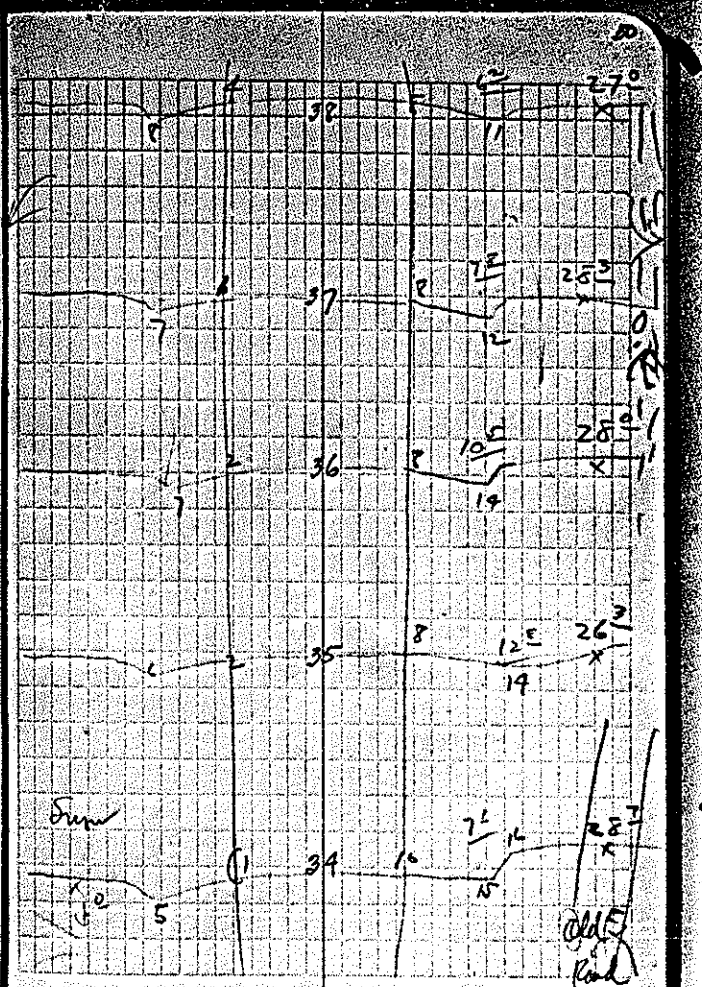


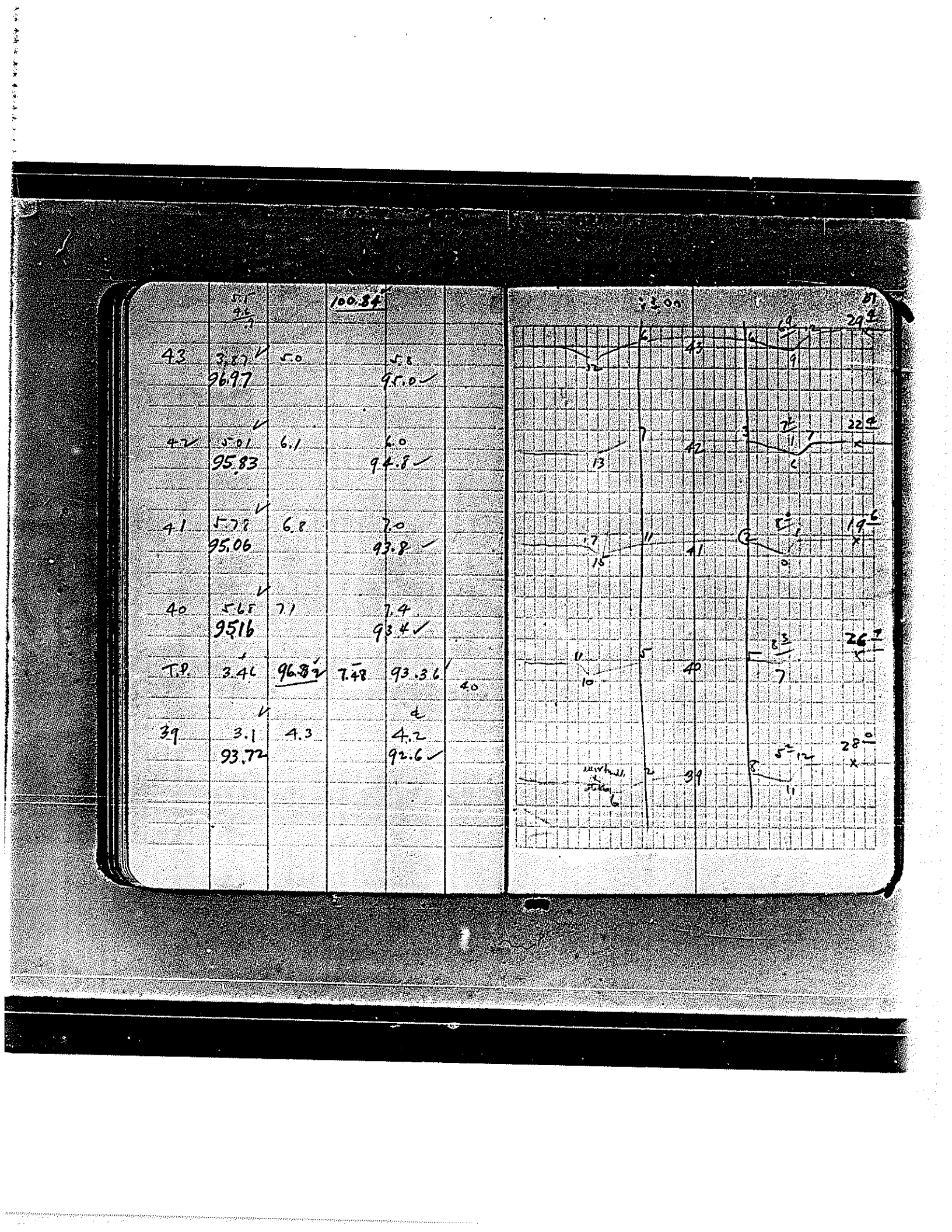
88.97

33	9.10	8.2	7.4	
	81.87		81.6	
32	4.52	2.6	5.4	
	87.41		83.6	
31	4.37	5.4	6.7	
	84.60		82.3	
30	5.91	7.5	7.4	
	83.06		81.6	
29	4.25	5.9	7.0	
	84.72		82.0	
			79.6	

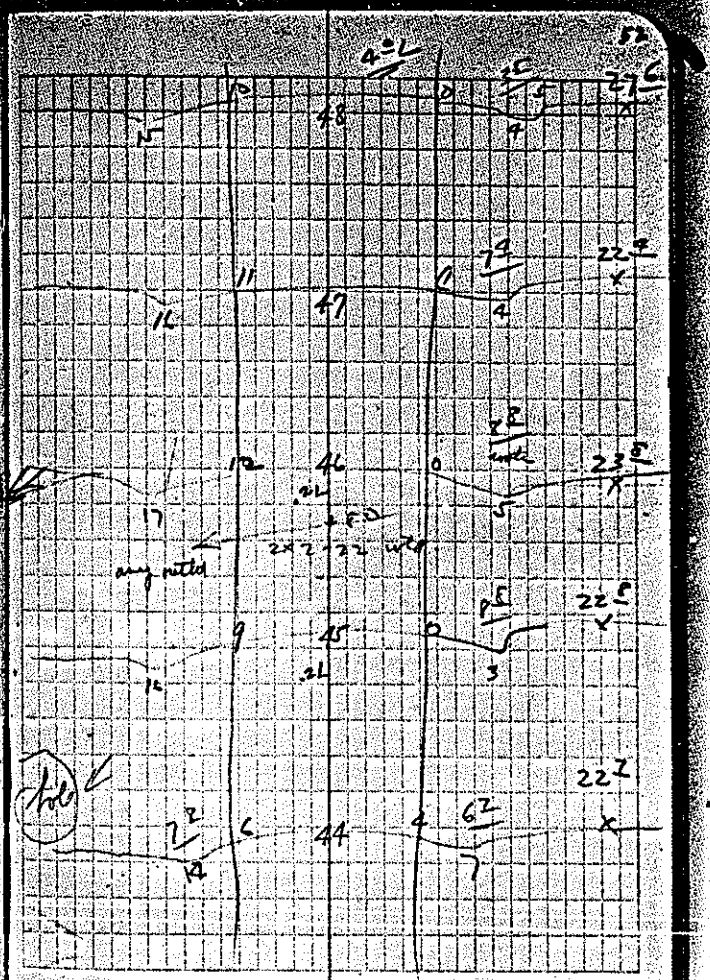


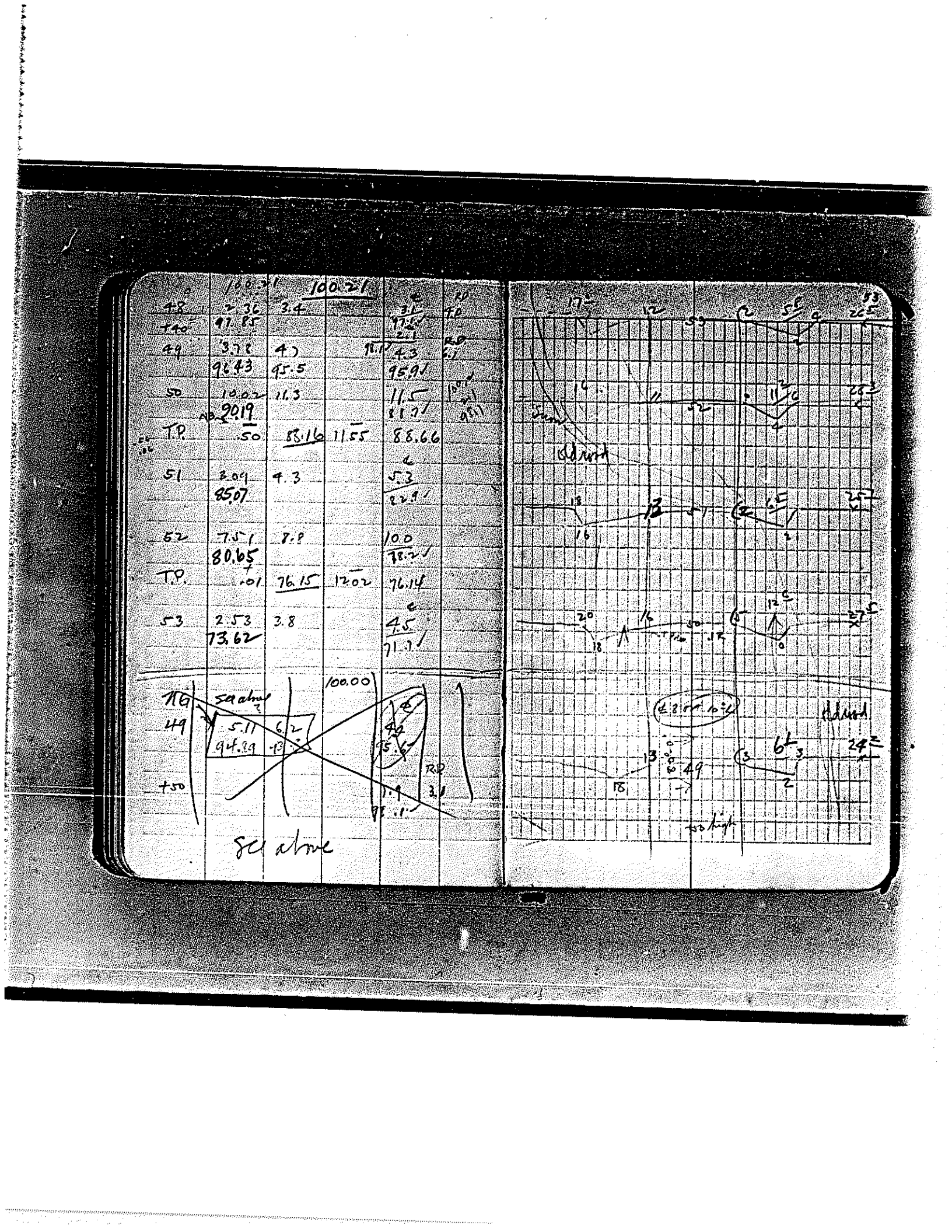
			96.82	
38	3.87	5.5	5.3	
	92.95		91.5	
37	5.06	6.3	6.6	
	91.86		90.2	
36	7.20	8.9	9.5	
	89.62		87.3	
35	11.95	13.0	11.1	
	84.87		84.7	
T.P.	3.75	88.97	11.60	85.22
34	5.10	6.3	5.9	
	83.87		83.1	



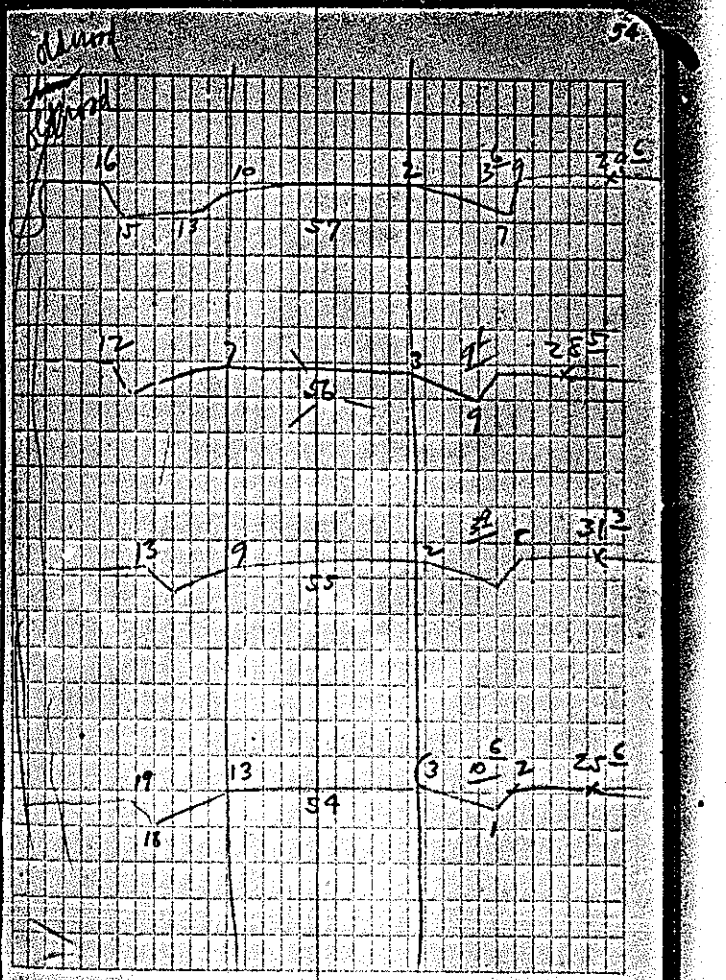


		100.00			
48	3.15	3.2		2.7	
	97.85			97.3	
47	4.86	6.4		6.7	
	95.14			93.3	
46	5.88	6.9		8.0	
	94.12			92.0	
T.P.	7.96	100.84	7.12	92.88	
45	5.86	7.0		8.0	
	94.98			92.8	
44	4.04	5.2		6.3	
	96.80			94.5	



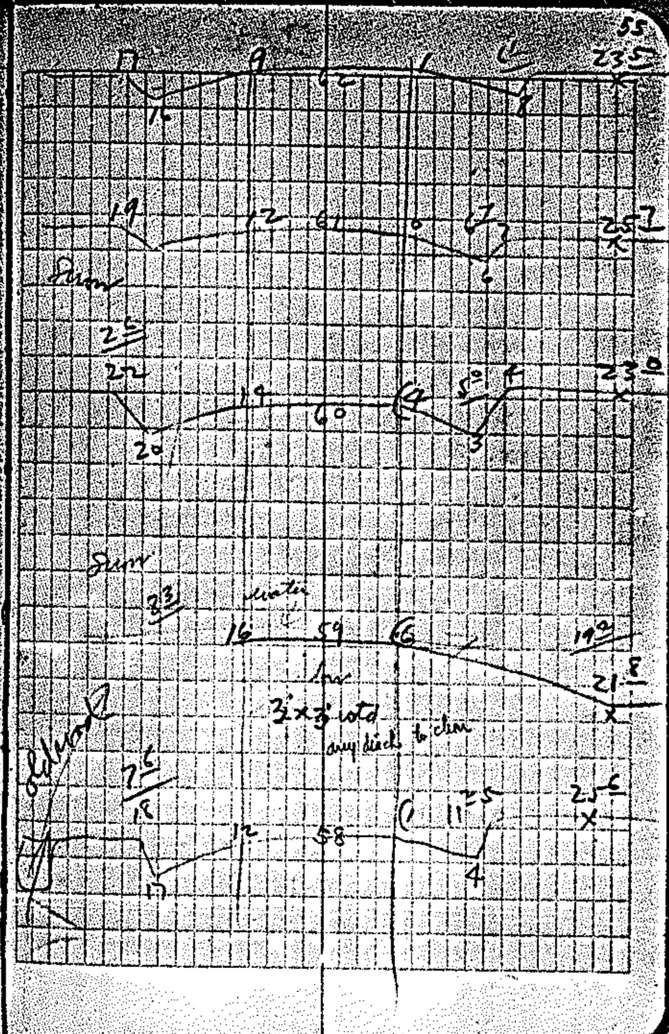


			76.05	
54	8.21	9.4		9.1
	67.94			67.1 ✓
T.P.	+.91	65.40	1166	64.49
55	.69	2.0		2.5
	64.71			62.9 ✓
56	6.35	7.3		7.5
	59.05			58.6 ✓
455	heel			8.4
				57.0 ✓
57	9.64	11.8		12.5
	56.86			52.9 ✓
T.P.	.77	54.39	1176	53.62
58	7.29	8.4		



54.37

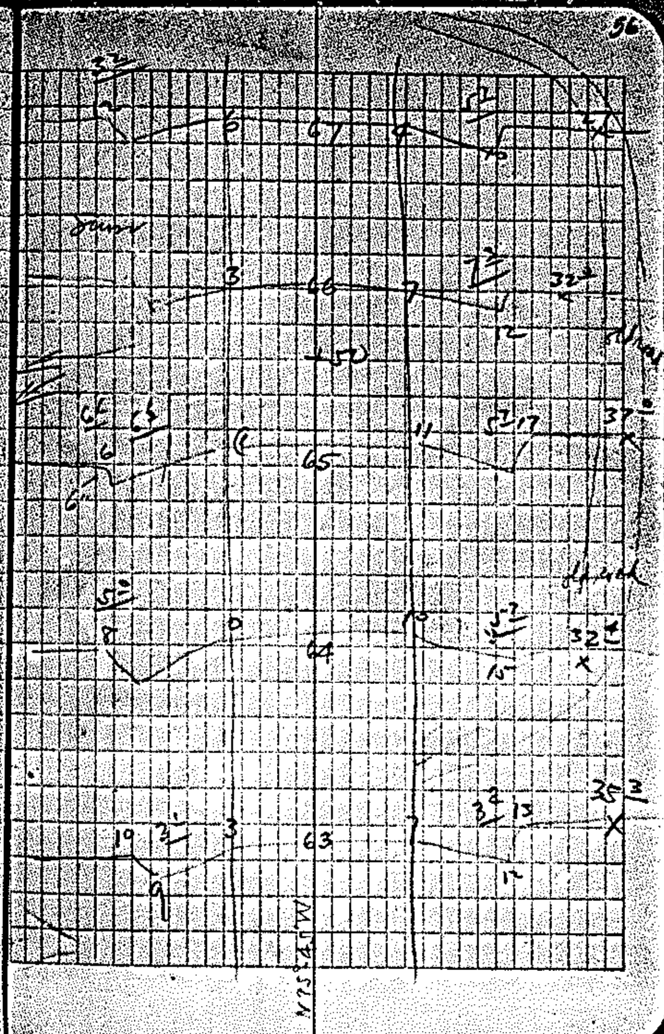
58	7.29 47.10	8.4		9.8 44.6✓	
T.P.	5.26	47.80	11.85 L.Dial	5.26 42.54 HI = 2.8	
59	17.9 29.90	19.4	8.3	7.9 39.9✓	10.8
60	2.11 45.69	3.7		3.6 44.2✓	
+ 40				.5 47.3✓	
T.P.	6.49 1.65 5.20	53.80 1.6 4.9	.49	47.31	8.35 6.7 7.65
61	7.09 4671	8.5		5.1 48.7✓	
62	2.2 51.60	3.5		4.2 49.6✓	



Computed Work

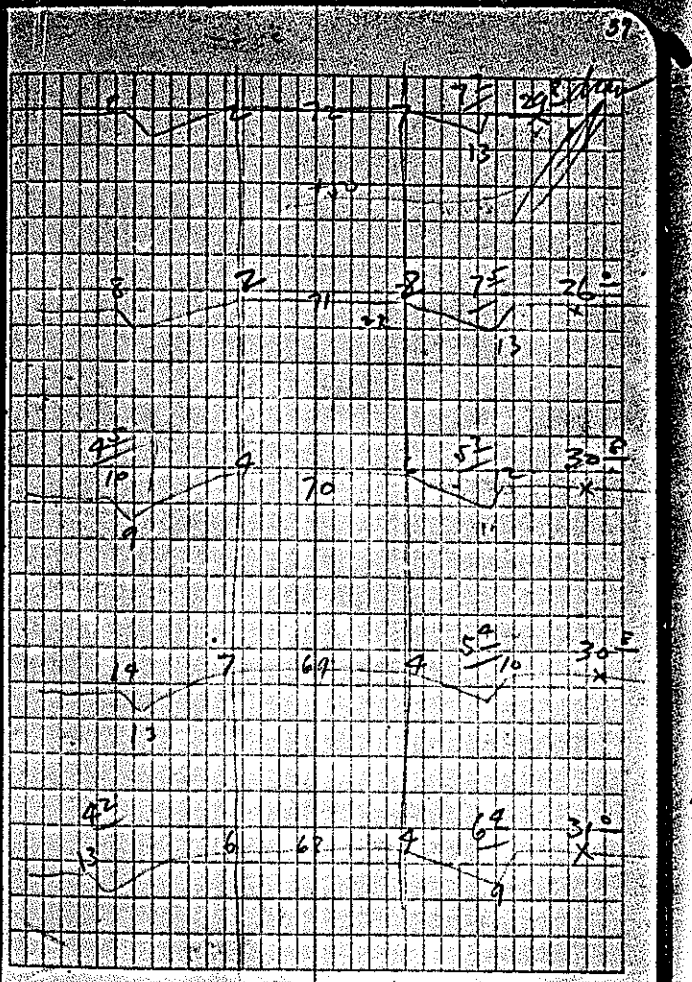
53.80

63	.4 53.4	1.5	Lft 1.8 52.0 ✓	
64	3.99 49.81	5.3	4.3 49.5 ✓	
65	2.01 51.79	3.6	4.7 49.1 ✓	
+60			3.6 50.2 ✓	
66	4.98 48.82	6.4	5.9 47.9 ✓	
+90			3.7 50.1 ✓	
67	3.75 50.05	5.0	3.6 50.2 ✓	

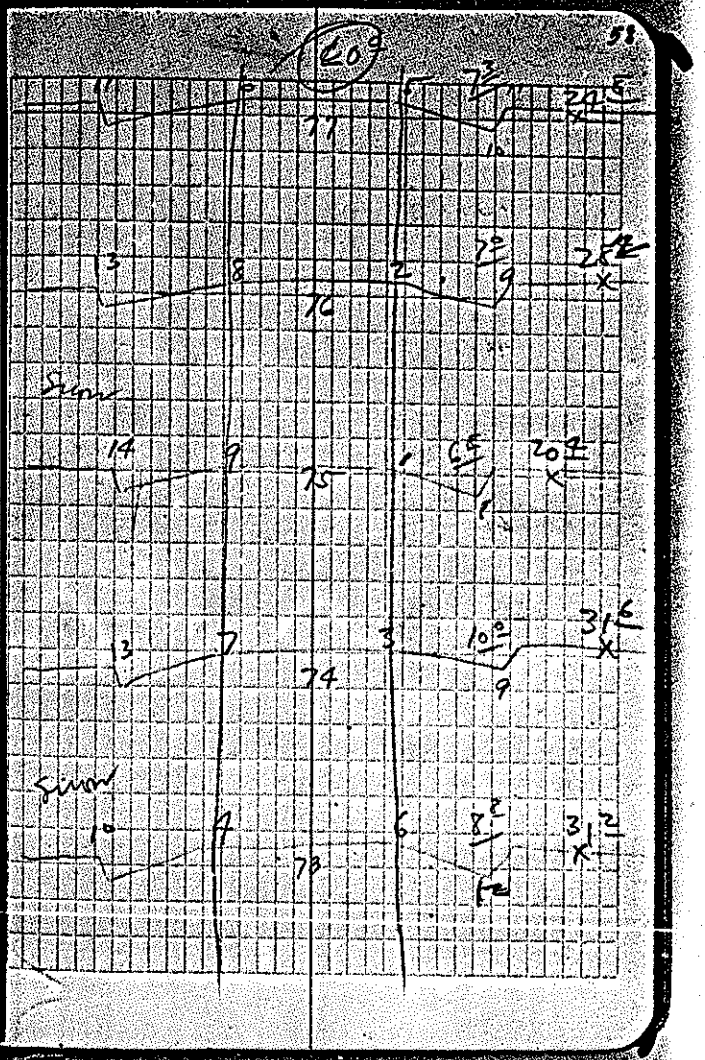


53.80

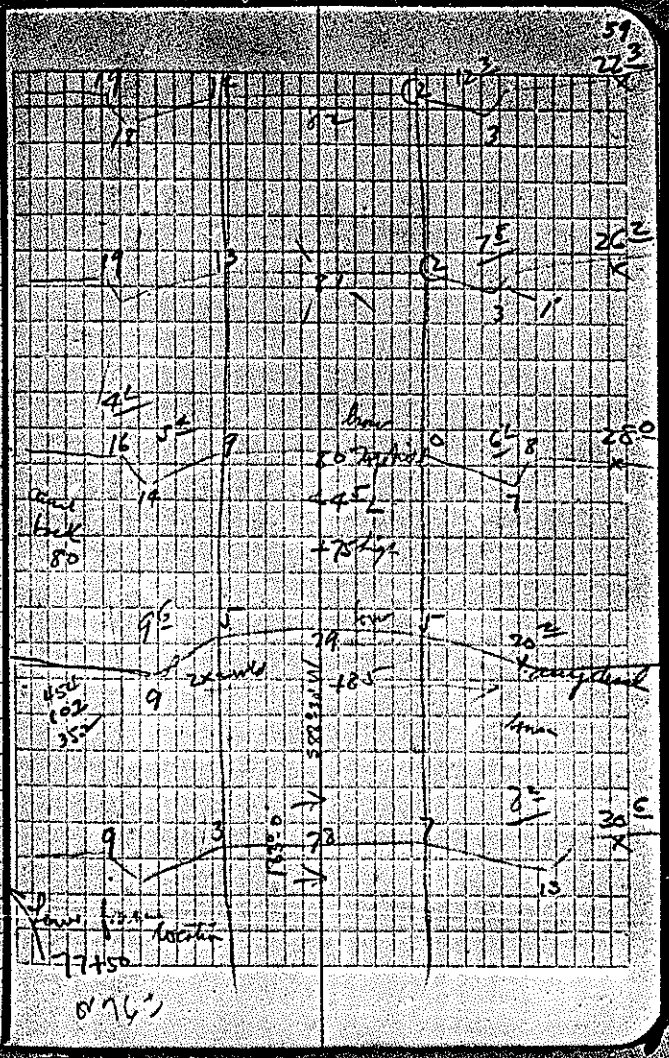
68	4.02	5.3		4.6
	49.78			49.2 ✓
TP	3.04	5.10	4.74	49.06
	2.9	4.2		
69	3.3	5.1		3.9
	48.8			48.9 ✓
70	2.40	4.0		4.1
	49.70			48.0 ✓
71	3.51	5.4		5.7
	48.59			46.4 ✓
72	5.57	7.4		5.7
	46.53			46.4 ✓



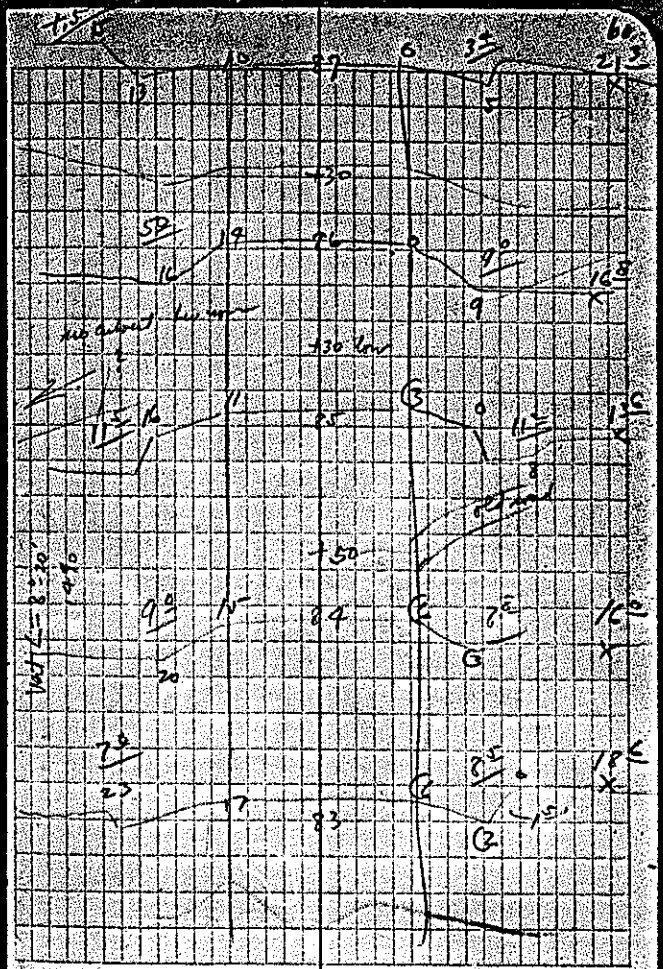
			58.10		
73	7.50 44.60	9.3		7.1 45.0 ✓	
74	7.85 44.25	9.2		8.4 43.7 ✓	
T.P.	6.87	50.57		8.40	43.70
75	4.35 46.22	5.9		5.0 45.6 ✓	
76	4.38 46.19	6.2		5.3 45.3 ✓	
77	5.11 45.46	6.6		5.3 45.3 ✓	



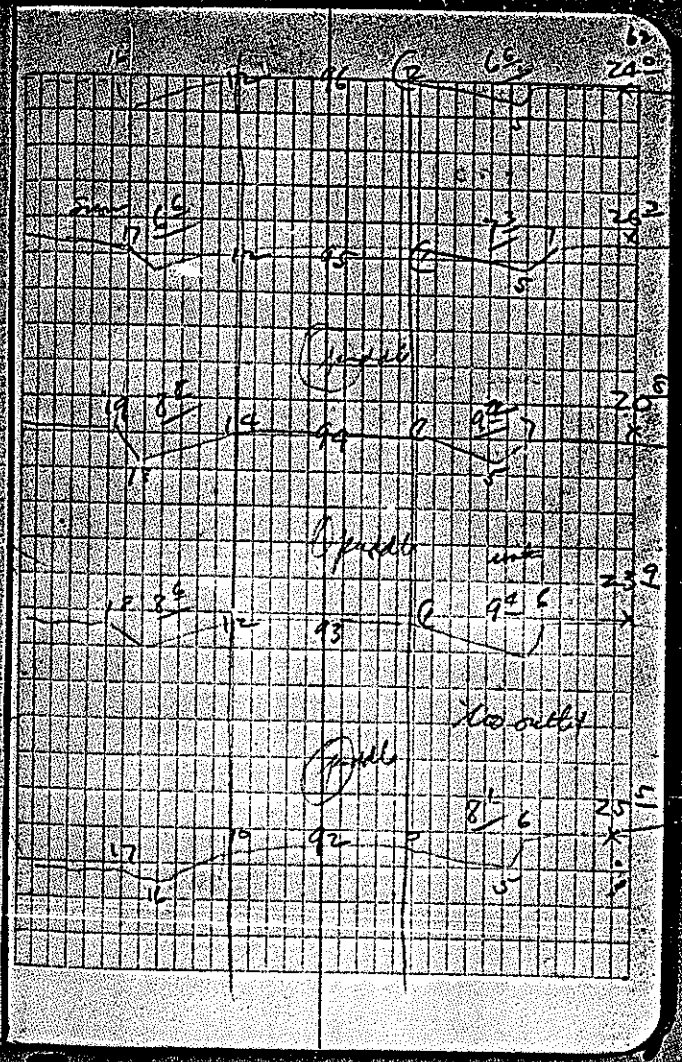
			51.52		
78	5.22	6.6		6.5 ✓	
	45.35			44.1 ✓	
T.P.	6.44	45.37	11.64	38.93	
		dis. to turn			
79	7.91	11.6		7.3	
	35.46			38.1 ✓	
				3.4	
				42.0 ✓	
80	3.25	4.5		3.8	
	42.12			41.6 ✓	
81	5.30	6.6		6.3	
	40.07			39.1 ✓	
82	7.35	9.1		11.1	
	38.02			34.3 ✓	
T.P.	1.05	35.01	11.41	33.96	



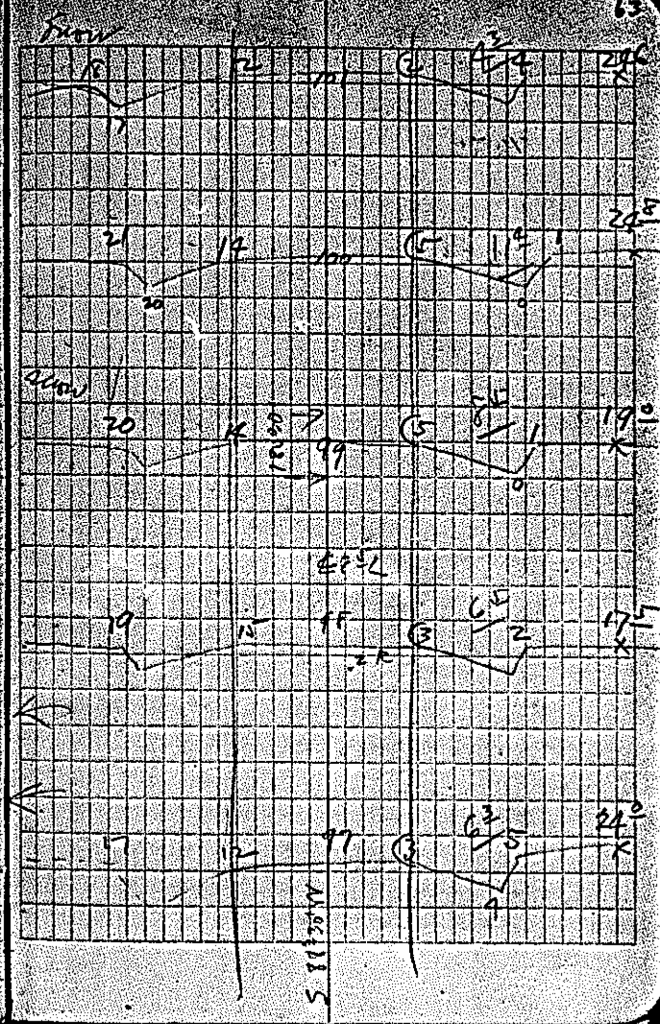
			35.0	
83	6.57 28.47	8.0		16.7 28.3
T.P.	5.91	29.46	11.46	23.55
84	7.77 21.69	9.2		7.9 21.6
85	9.53 19.83	10.3		8.5 21.0
86	7.97 21.49	9.3		4.0 25.5
T.P.	+ 11.56	40.47	.5-	28.91
87	2.55 47.92	3.7		2.1 30.4
T.P.	+ 11.77	51.78	.4-	40.01
T.P.	+ 11.82	63.02	.5-	51.20



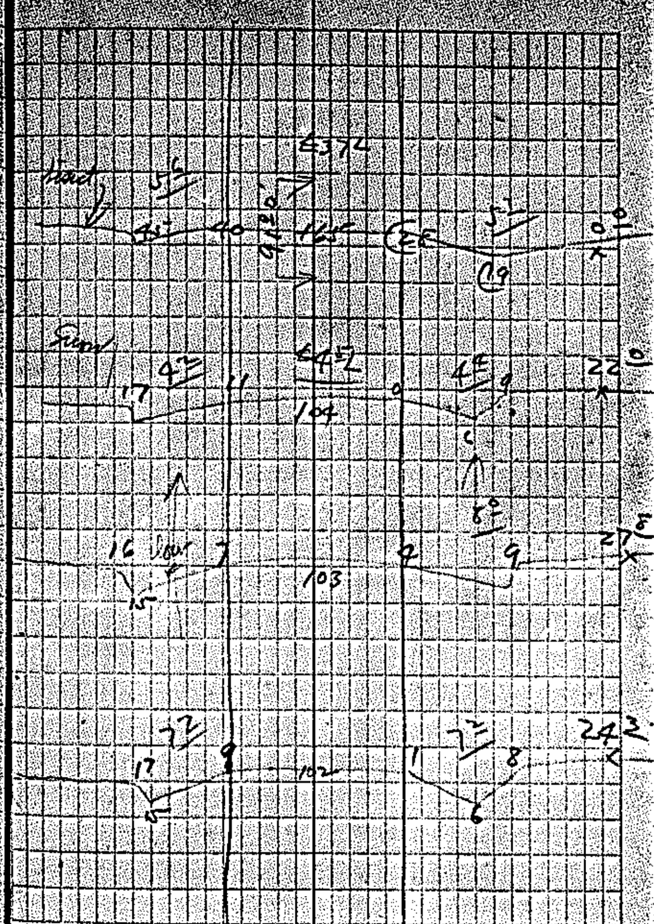
			7.8:60	
92	3.68 74.92	49		6.8 71.8 ✓
93	6.12 72.48	6.9		7.4 71.2 ✓
94	6.48 72.12	7.8		7.1 71.5 ✓
95	3.95 74.65	5.2		5.2 73.4 ✓
T.P.	4.81	9.33	4.08	74.52
96	3.25 75.48	5.1		4.8 74.5 ✓
97	~~7.03~~	4.2		



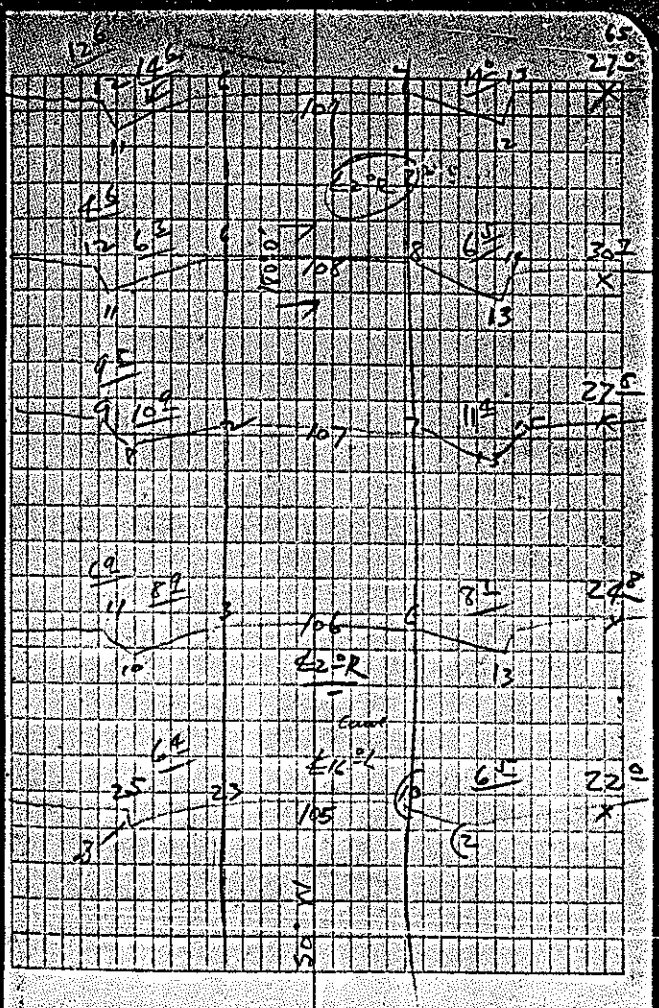
			29.33		
97	3.03 7630	4.2✓		4.6 74.2✓	
98	3.33 7600	4.9		4.8 74.5✓	
99	2.43 74.90	5.2		7.1 72.2✓	
100	6.75 72.58	8.2		9.7 69.6✓	
TP	1.26	68.71	11.88	67.45	
101	.42 78.29	1.6		3.1 65.6✓	



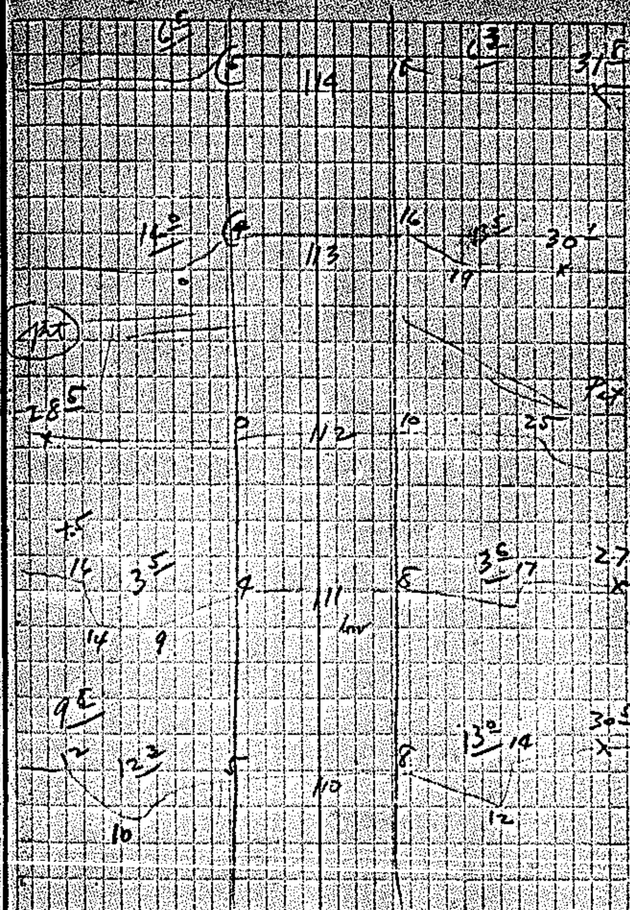
			68.71	
102	3.14 65.57	4.4		5.7 63.0✓
103	5.63 63.08	6.7		6.8 61.9✓
T.P.	2.37	62.47	8.61	60.10
104	1.35 61.12	2.7		2.8 59.7✓
+65	2.32 59.65	4.6		4.6 57.9✓



			62.42	
105	4.14	5.4		5.0
	58.33			57.5 ✓
106	6.24	7.8		7.1
	56.23			55.4 ✓
107	8.14	9.4		9.6
	54.33			53.9 ✓
+20				10.2
				53.3 ✓
T.P.	.13	51.63	11.77	50.70
108	3.48	4.8		4.4
	48.15			47.2 ✓
109	10.49	11.7		12.6
	41.14			39.0 ✓
T.B. ↘				
T.P.	−.03	39.84	11.76	39.87
+50				4.2
				35.6 ✓



			39.84	
110	9.00 30.84	10.27		10.8 29.0✓
N.B. → T.P.	-.09	28.14	11.61	28.23
T.P.	.14	16.53	11.47	16.67
111	1.97 14.56	3.2		2.8 13.1✓
112✓	7.67 8.86	8.8		8.7 7.8✓
113	11.67 12.50 4.03	13.5		11.3 5.2✓
T.P.	3.98	9.18✓	11.33	5.20
114	5.32 3.86	6.5 4.1		5.3 3.9✓

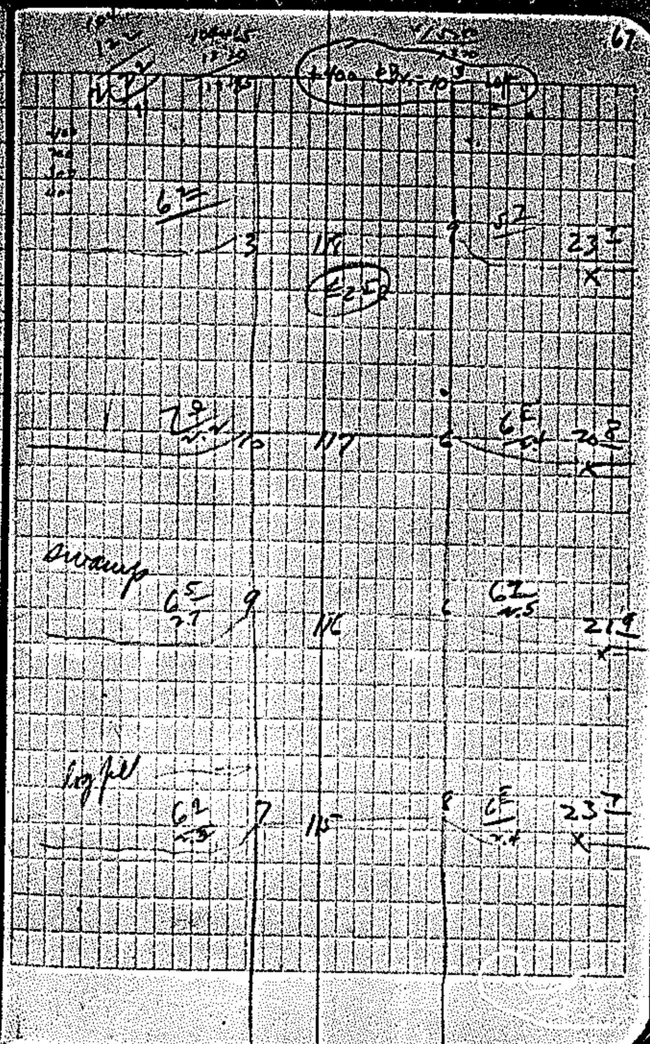


9.18

115	4.77 / 4.41	6.7		5.5 / 3.7 ✓
116	4.71 / 4.47	6.8		5.3 / 3.9 ✓
117.	4.85 / 4.33	6.9		5.4 / 3.8 ✓
118	4.17 / 4.8 / 4.38	6.5		5.6 / 3.6 ✓

N.B. see next page.

plot to 1.18 + 400 on plan.



Relocation from 77 to 115.

Set up at 77 - back sight on T.L.
Bearing N85°-45' W.

Turn 150°-0' " S 64°-15' W.

Run thru to sta 91 or 1400'

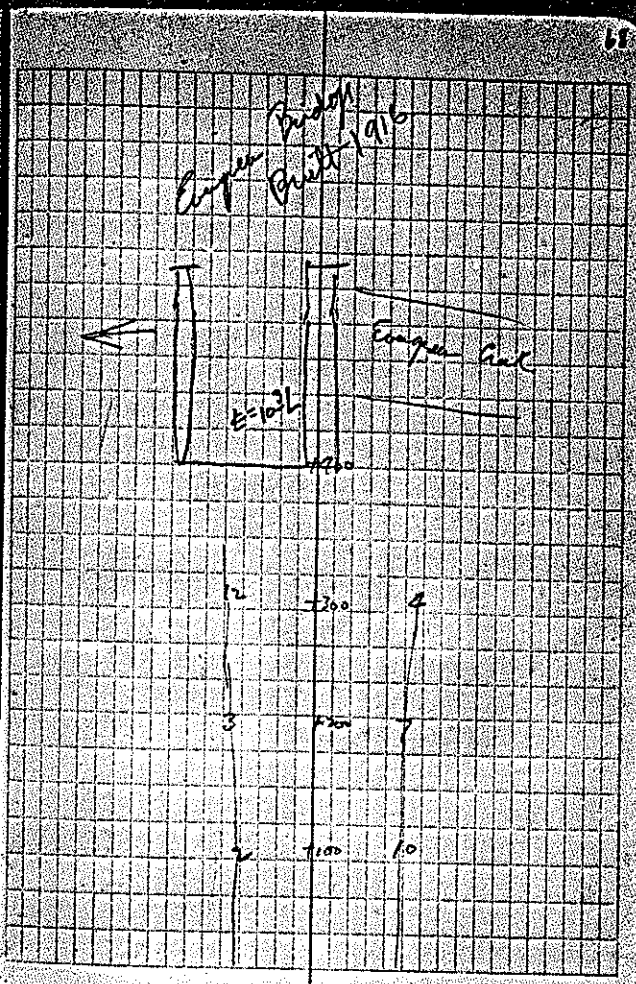
Head Back 213°-0' - Bearing N82°-45' W.

Run thru to sta 107+10 = old T.L.

± sta 112+00

115
77
35

Relocation = 3000'
Old Road = 3500'
Less paving 500'



LANGLADE-ELTON RD.
(Relocation)

#3323

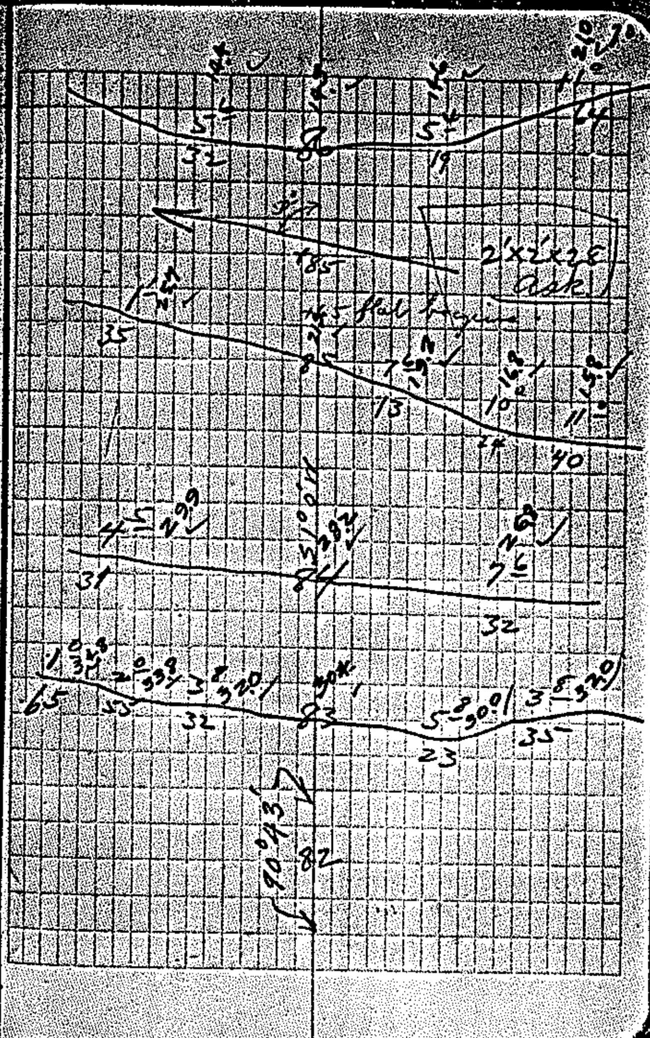
Party - F.M. Chorkesworth
Chas. Olson. 5-8,9,-17 - 15hrs.
G.F. Marshall C.R.&B.Comm.
E.A. Moss Memb. R.&B.Comm.
F.J. Olmstead " " " "

5/12 82B 3/4hr Chuck Holes

2900'

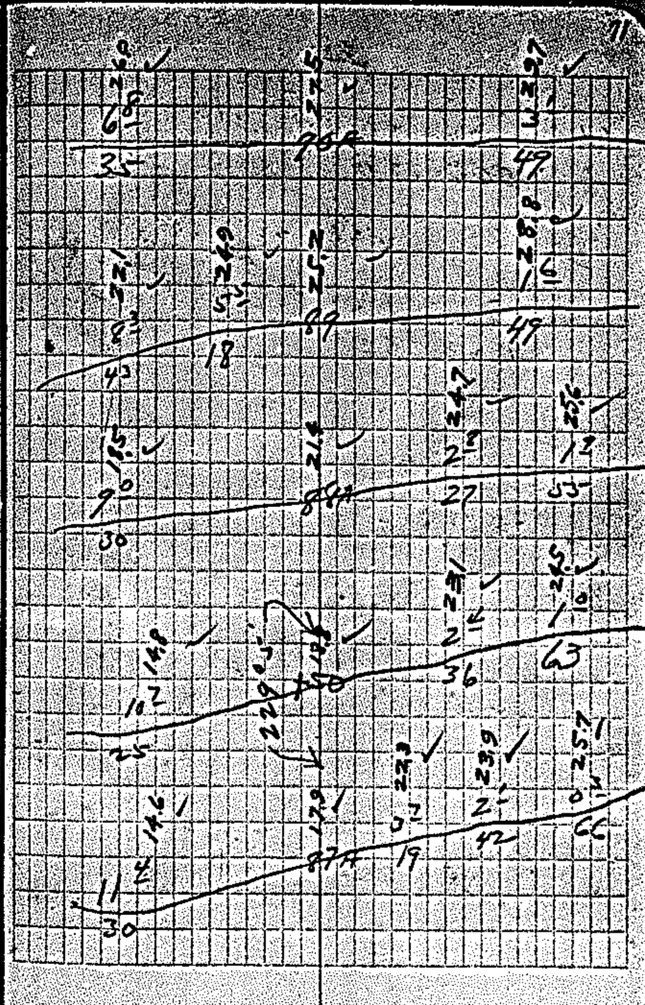
3942

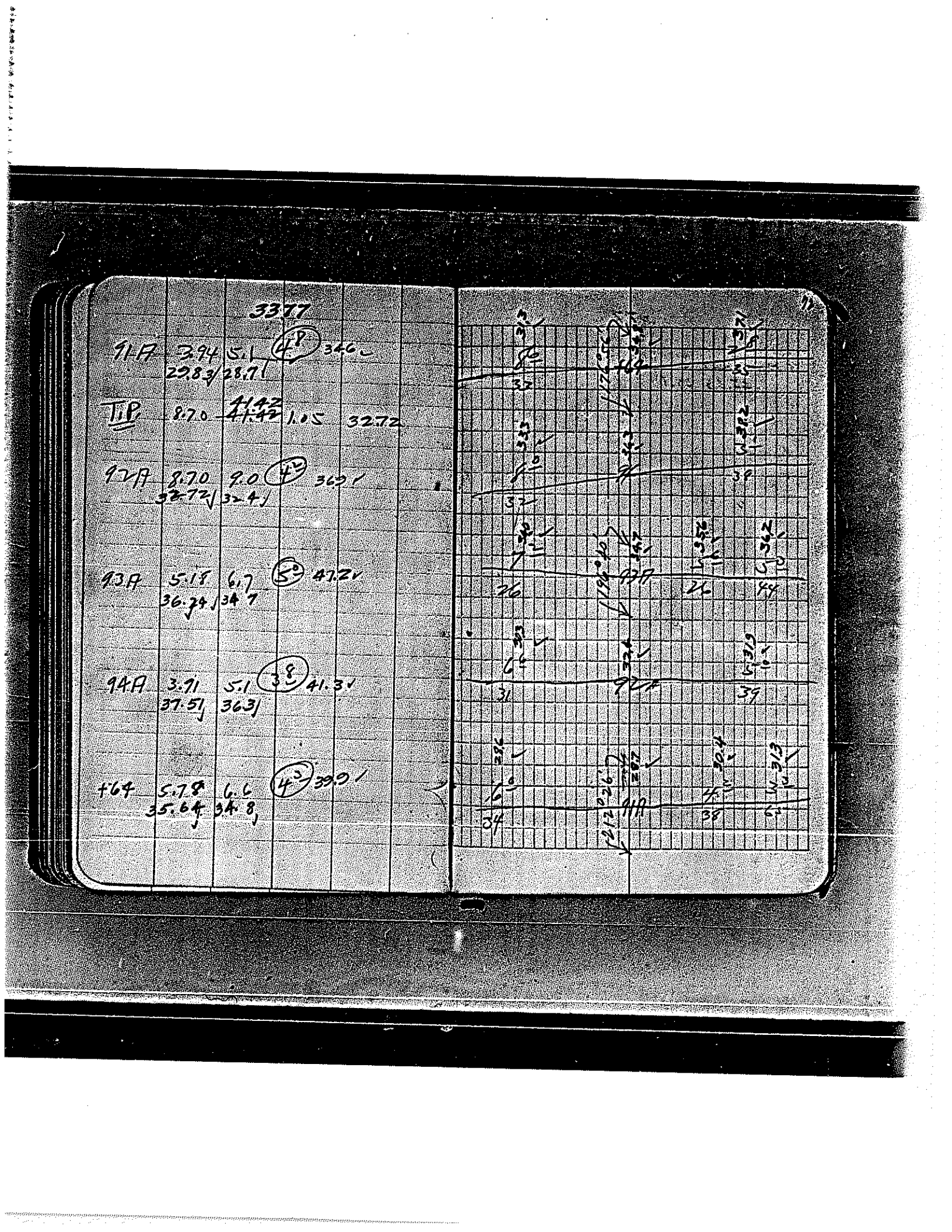
use fr BM 82	1.40 ✓ 38.02 ✓	3.1 36.3 ✓		£ Road 5³ 34.1 ✓	
83A	7.67 31.75	9.0 30.4 ✓	(4.0)	HI 35.8 ✓	
T.P.	0.64	30.21	9.85	29.57	
84A +50	0.64 ✓ 29.57	2.0 29.2	(4.8) (4.0)	H.I. 34.4 H.I. 33.6	6³ 27.3
T.P.	0.01	23.18	7.04	23.17	
85A	0.01 ✓ 23.17	1.3 21.9 ✓	(3.6)	26.8 ✓	
86A	7.54 15.6 + 5 7.5 +	8.7 14.5 ✓	(4.4) 19.6	20.0 ✓ 19.6	
culv			(4.0) 19.6	5⁶ ✓ 14.0	R 5⁶ 14.0



3318

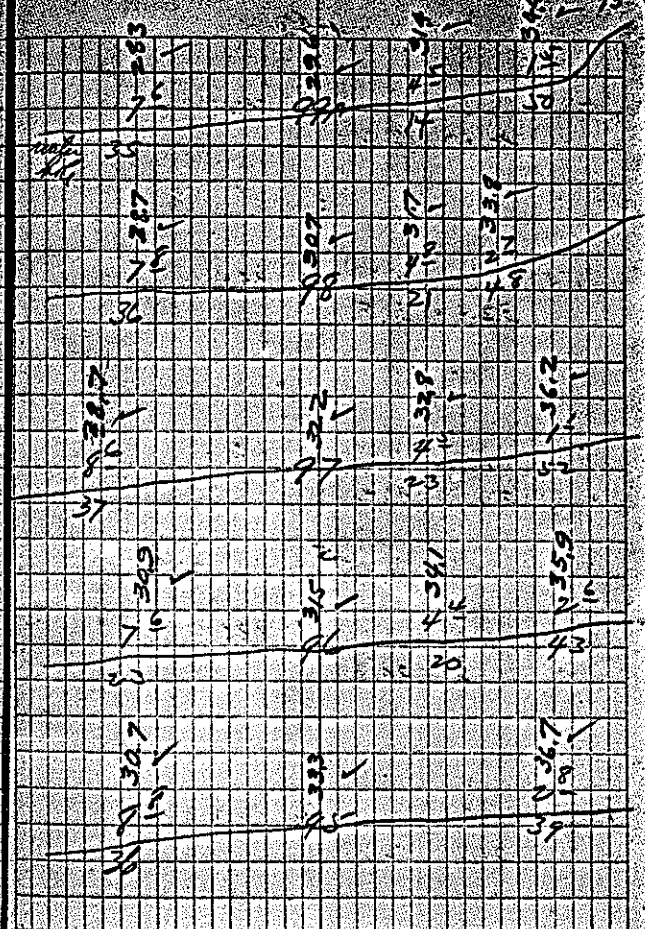
87A	3.82	5.3	(5.6) HI	26.0
	19.36	17.9		
T.P.	8.84	28.76 / 28.76	3.26	19.92
+50	8.84	10.0	(5.5) 41.	25.5
	19.92	18.8		
88A	6.25	7.4	(5.0)	27.5
	22.51	21.41		
T.P.	7.42	33.77 / 33.77	2.41	26.35
89A	7.42	8.6	(4.0) HI	30.4
	26.35	25.2		
90A	5.51	6.3	(4.5)	32.8
	28.26	27.5		




3377
91A 3.94 5.1 (48) 34.6
29.83 28.71
T1B 8.70 41.42 41.42 1.05 32.72
92A 8.70 9.0 (42) 36.9
32.72 32.4
93A 5.18 6.7 (50) 47.2
36.79 34.7
94A 3.91 5.1 (38) 41.3
37.51 36.3
464 5.78 6.6 (42) 39.0
35.64 34.8

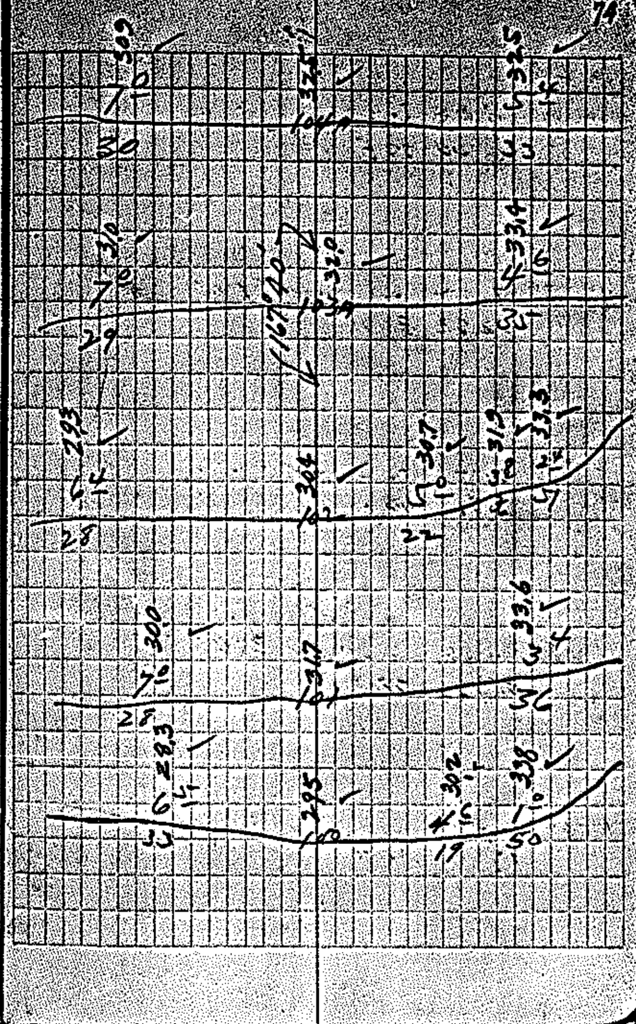
4142

95A	6.90	9.1	(4.9)	39.5 ✓
	34.62 ✓	33.3 ✓		
96A	8.48	9.9	(5.5)	38.5 ✓
	32.94 ✓	31.5 ✓		
97A	8.32	9.2	(4.2)	37.3 ✓
	33.10	32.2 ✓		
T.P.	2.93	~~34.55~~ 34.55	9.80	31.62
98A	2.93	3.9	(4.2)	36.5 ✓
	31.67 ✓	30.7 ✓		
99A	3.85	5.0	(4.2)	35.9 ✓
	30.70 ✓	29.6 ✓		



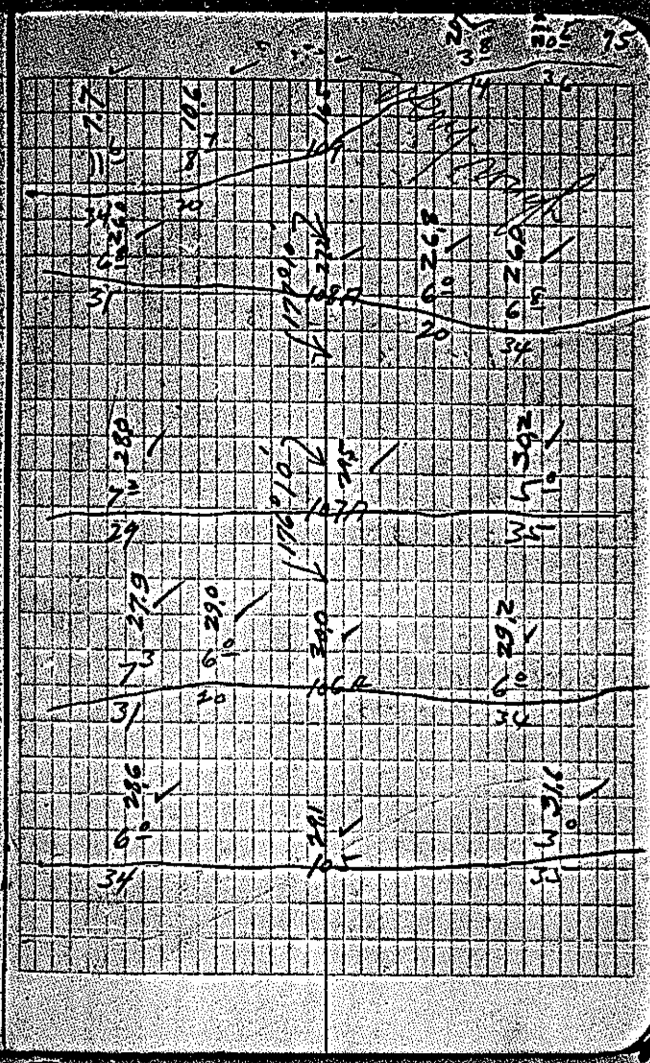
3455

100A	4.05	5.1	(4²) M.	
	30.50 ✓	29.5 ✓	348 ✓	
101A	2.02	2.9	(4⁵) 37.0 ✓	
	32.53	31.7		
102A	2.84	4.2	(4⁰) 35.7 ✓	
	31.71	30.4		
T.P.	2.63	35.62 / 35.62	1.56	32.99
103A	2.63	3.6	(5⁰) 38.0 ✓	
	32.99	32.0		
104A	1.93	3.1	(4²) 37.9 ✓	
	33.69	32.5		



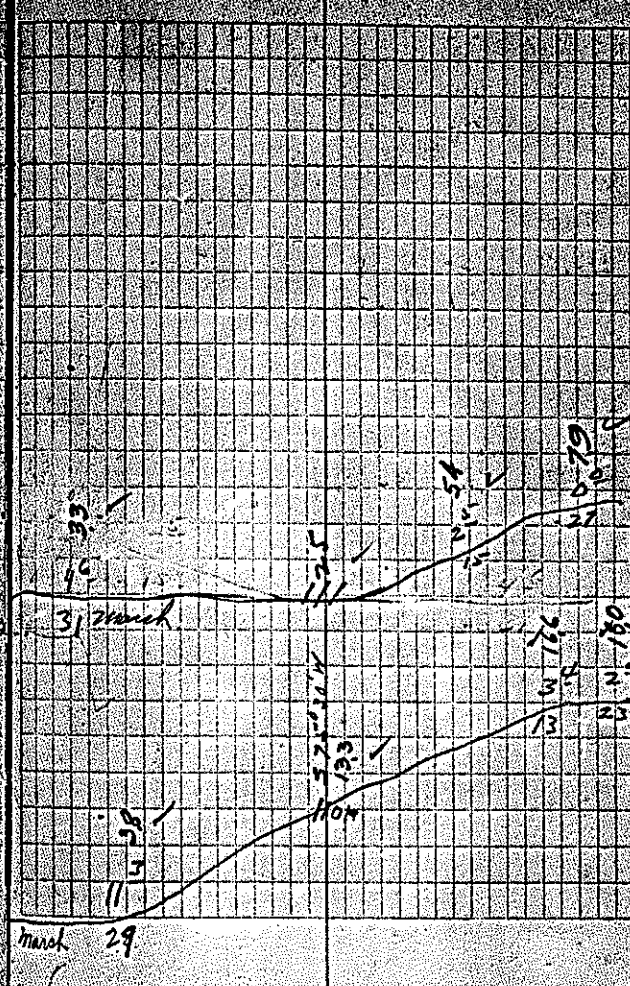
3562

10.5A	5.40	6.5	(4°) 34.6 ✓		
	30.27 ✓	29.1 ✓			
10.6A	4.42	5.6	(4°)	35.2 ✓	
	31.20 ✓	30.0 ✓			
T.P.	2.24	32.40 32.40	5.46	30.16	
10.7A	2.24	2.9	(5°)	35.2 ✓	
	30.16 ✓	29.5 ✓			
10.8A	4.20	5.2	(6°) 41 ✓ 32.80	22.8 m10.8A (1.6 9°)	20.1
+45	28.30 ✓	27.29			
T.P.	1.87	23.68 23.68	10.59	21.81	
10.9A	6.20	7.2	down (1.8) 12.3	up (7°) -10 24.5 14.5	
+25	17.48 ✓	16.5 15.28			
T.P.	0.96	15.20	9.20	14.48	



1528

110A	0.80	21.0	(down 6) 0 H1 151 ✓	(uphill 5) H1 20.0 ✓
	14.48 ✓	13.8 ✓		
111A	11.54	12.8	(4) 7.9 ✓	
	3.74 ✓	2.5 ✓		
m.T.L. April 113 +18	10.12	11.8		
	5.16 ✓	3.5 ✓		
113	11.44	12.5		
	3.84	2.8 ✓		



	Gravity	Top set		
31	81.2	84.60	B	3'-5"
32	81.4	87.41	B	6'-0"
33	81.6	81.87		B 0'-3"
34	82.8	83.87		B 1'-1" (circled)
35	85.4	84.87		A 0-7"
36	88.0	89.62		B 1.5"
37	90.2	91.86		B 1.8"
38	91.8	92.95		B 1.2"
39	92.6	93.72		B 1-2"
40	93.4	95.16		B 1'9"
41	94.2	95.06		B 0.3"
42	95.0	95.83		B 0-10"
43	95.0	96.97		B 2'-0"
44	94.4	96.80		B 2.5
45	93.8	94.98		B 1.2
46	93.3	94.12		B 0-4"
47	93.2	95.14		B 1:11 (circled)
48				
49	94.0	96.43		B 2-5"
50	88.8	90.19		B 1-5"
51	83.6	85.07		B 1.6
52	78.4	80.65		B 2.2
53	73.2	73.62		B 0.5
54	68.0	67.94		A 0.1
55	62.8	64.71		B 1.11
56	57.6	59.05		B 1-5"

57	52.4	55.86	B 3.6
58	47.2	47.2	A 1
59	43.6	(29.92)?	
60	45.2	45.69	B 0.1
61	48.4	46.7	A 1.8
62	49.6	51.60	B 2.0


KEITH'S RAILROAD CURVE TABLES.
Published by KEUFFEL & ESSER CO., New York.
Blank Pages
78-79

85	91.5			
86	96.0	4.5		
87	108.9	12.9	13.6	
88	123.1	15.2	319.03	
89	135.9	12.2		
90	144.5	8.6		
91				

88=96.0
89–135.9
96.0
3)39.9 (13.3

KEITH'S RAILROAD CURVE TABLES.

Published by KEUFFEL & ESSER CO., New York.

HOW TO USE KEITH'S TABLES.

EXAMPLE.

Wanted a Curve with an Ext. of about 12 ft. Angle of Intersection or I. P.=23° 30' to the R. at Station 542+73.

Ext. in Tab. IV opposite 23° 30'=120.87
120.87+12=10.07. Say a 10° Curve.

Tan. in Tab. IV opp. 23° 30'=1183.1
1183.1+10=118.31.

Tab. V. correction for A. 23° 30' for a 10° Cur.=0.16
118.31+0.16=118.47=corrected Tangent.

(If corrected Ext. is required find in same way)
Ang. 23° 30'=23.33°+10=2.3333=L. C.

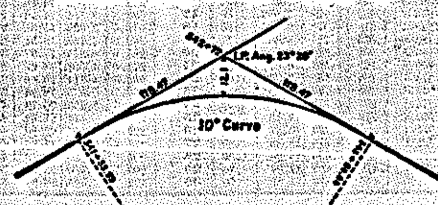
2° 19½'=def. for sta.	542	I. P.=sta.	542+73
4° 49½'= " " "	+50	Tan.=	1.18.47
7° 19½'= " " "	543	B. C.=sta.	541+53.53
9° 49½'= " " "	+50	L. C.=	2.33.33
11° 40'= " " "	543+ 86.86	E. C.=sta.	543+86.86

100−53.53=46.47×3'(def. for 1 ft. of 10° Cur.)=139.41'=
2° 19½"=def. for sta. 542.

Def. for 50 ft.=2° 30' for a 10° Curve.

Def. for 36.86 ft.=1° 50½' for a 10° Curve

(These tables are published in Field Books of Keuffel & Esser Co., New York, N. Y.)



7	8
1.4	3
7.46	7.12
3.46	7.48
3.75	11.60
11.15	.66
11.79	.47
11.19	1.05
1.38	7.77
.90	11.89
1.32	12.00
.35	11.49
1.81	11.84
.04	11.54
.66	10.58
	11.62
	.36
2.55	11.89
57.31	128.36
	57.31
	71.05

1500
2900
2900
1500
7300
1400
8700

111.18
83.00
28.18

113
82
31

2400
2
2700

.212
165)3580
330
200
165
350

212
5
1060

10000
71.05
28.95

Manno Bridge — South wings abuts cracking

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 14 feet wide. Side Slopes 1½ to 1.

For Single Track Embankment.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

Calculated by Julien A. Hall, M. Am. Soc. C. E. M

MADE IN GERMANY.