

6

1950

K&L
COUNTY

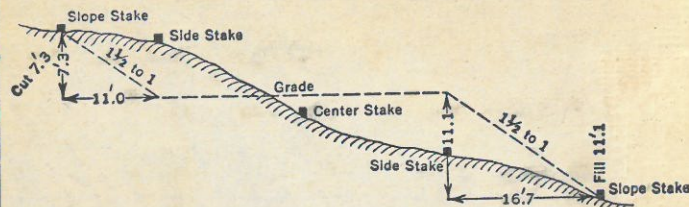
JACKSON
LEON

1950

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes $1\frac{1}{2}$ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



Cut or Fill	Distance out from Side or Shoulder Stake										Cut or Fill
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

FLORIDA GEOLOGICAL SURVEY

BOX 631

TALLAHASSEE

FLORIDA

#6

The paper in this book No. 373A

is made of 50% high grade rag stock
with a WATER RESISTING surface sizing.

TRAV # 194 CONT.
RETRACE to TBM #7

TBM #4	5 ⁶ 6.32	160.58		154.26
TP ₃	8.82	160.36	7 ⁴ 9.04	151.54
TP ₄	1.43	158.92	2.87	157.49
TBM #3			2.52	150.80
TP ₅	3.63	153.32	9.23	149.69
TP ₆	0.77	149.91	4.18	149.14
TP ₇	8.52	149.18	9.25	140.66
TP ₈	10.08	158.83	0.43	148.75
TP ₉	1.00	152.08	7.75	151.08
TBM #2			2.88	149.20
TP ₁₀	5.79	152.71	5.16	146.92
TP ₁₁	4.10	147.47	9.33	143.38
TBM #1	5.10	149.29	3.29	144.19
TP ₁₂	4.69	147.97	6.01	143.28
TP ₁₃	0.73	137.11	11.59	136.38
TP ₁₄	2.46	136.54	3.03	134.08
TBM #7	+63.44		6.27	130.27
	-87.43		87.43	23.99 ✓
	-23.99 ✓			

July 3, 1950

HOT! + SUNNY

TRAB # 195

LEVELING FROM TBM#3 TO W-1880+1881

July 6, 1950

CLOUDY & WARM

STA	+S	HI	-S	EL.
TBM#3	1.57	115.23		113.66
TP ₁	6.20	114.90	6.53	108.70
TP ₂	8.84	123.67	0.07	114.83
TBM#2-A	1.09	122.01	2.75	120.92 →
TP ₃	0.86	117.28	5.59	116.42
TP ₄	6.54	115.67	8.15	109.13
TP ₅	1.76	114.53	2.90	112.77
TP ₆	0.43	103.12	11.84	102.69
TP ₇	1.60	92.81	11.91	91.21
TP ₈	5.86	90.64	8.03	84.78
W-1880	JK		0.42	90.22 92ND
W-1880			90.66	CASS
TP ₉	10.11	99.37	1.38	89.26
TP ₁₀	11.41	109.88	0.90	98.47
TP ₁₁	9.30	118.51	0.67	109.21
TP ₁₂	5.52	115.55	8.48	110.03
TP ₁₃	2.51	108.00	10.06	105.49
W-1881	JK	73.60	3.85	104.15 CASS
	83.11	9.51		

REF MK. SCHOOL
O.F. GREENWOOD INT. ABOUT 0.3 mi. W

TRAY H 195

RETRACE

July 6, 1950

HDT + Sunny

Sta	+S	HT	-S	El.
W-1881	10.95	115.10		104.15
TP ₁	6.77	120.05	1.82	113.28
TP ₂	5.23	115.57	9.71	110.34
TP ₃	2.11	106.25	11.43	104.14
TP ₄	11.54	115.32	2.47	103.78
TP ₅	3.84	116.79	2.37	112.95
TP ₆	5.92	121.96	0.75	116.04
TBM#2A	2.71	123.67	1.00	120.96
TP ₇	0.18	114.43	9.42	114.25
TP ₈	6.30	114.80	5.93	108.50
TBM#3			1.15	113.65 113.66

TRAV#196

LEVELING FROM USGS BM

to NEW ROCKS well

July 11, 1950

C1042.9

+ warm

STA	+S	HI	-S	EL.
BC 74	⁴ ₃ 6.30	99.30		93.0°
TP ₁	10.40	109.66	² ₃ 0.04	99.26
TP ₂	11.19	120.84	0.01	109.65
TP ₃	2.18	119.96	3.06	117.78
TBM #1	<u>6.2</u>		<u>0.07</u>	<u>119.89</u>
TP ₄	0.95	114.57	6.34	113.62
TP ₅	9.43	115.35	8.65	105.92
TP ₆	11.71	126.54	0.52	114.83
TP ₇	11.22	137.72	0.04	126.50
TP ₈	<u>7.92</u>	<u>145.37</u>	<u>0.27</u>	<u>137.45</u>
TBM #2	71.30		<u>3.10</u>	<u>142.27</u>
	<u>22.05</u>		22.03	49.27
	<u>49.27</u>			

3.56 145.83

142.27

3.25 142.58

142.6

91.9

WATER LEVEL 50.7 ABOVE MSL

WATER L. 91.9 below casing

TRAV # 196 CONT.

- RETRACE to USGS BM BC 74 -

TBM#2	³ 3.05	145.32	²⁴ 11.52	142.27	
TP1	0.10	133.90		133.80	
TP2	1.23	123.22		121.99	
TP3	0.75	113.68		112.93	
TP4	5.23	111.11		105.88	
TP5	9.31	119.95		110.64	
TBM#1	3.81	123.69		119.88	
TP6	2.19	115.63		113.44	
TP7	1.06	104.97		103.91	
TP8	<u>2.89</u>	<u>98.50</u>		<u>95.61</u>	
BC 74	29.62		<u>5.49</u>	<u>93.01</u>	93.0
	78.78		78.78	49.26	
	<u>49.16</u>				

TRAIL # 197

LEVELING FROM BM L89 TO W-1986

STA TS HI -S E.I.

BM 2.09 143.95 141.86

TP 3.78 145.59 2.14 141.81

TBM#1 6.32 139.27

RE/TRACE TO PBM

TBM#1 6.09 145.36 139.27

TP 2.12 143.93 3.55 141.81

PBM 2.07 141.86

TBM#1 ^{2 3 4} 6.84 146.11 139.27

TP₂ 10.87 156.66 ^{2 2 2} 0.32 145.79

TP₃ 4.54 160.77 0.43 156.23

TP₄ 2.09 151.70 11.16 149.61

TP₅ 2.16 142.80 11.06 140.64

TP₆ 2.95 137.82 7.93 134.87

TP₇ ^{JK} 3.18 135.67 5.33 132.49

W-1986 32.63 6.96 128.71

TBM#2 40.93 4.70 130.97 →

8.30 40.93 8.30 ✓

BRIDGE SPIKE IN BASE OF 12" SWEET GUM

35' E $\angle$ RD (75)

CHISELED $\square$ IN BASE TEXACO SIGN AT JUNCT.

RD (75) + (275)

TRAV# 197 CONT
 RETRACE TO TBM #1

STA	TS	HI	-S	EL.
TBM#2	² 6.03 ³	137.00		130.97
TP ₁	5.37	137.83	³ 4.54 ³	132.46
TP ₂	7.85	142.70	2.98	134.85
TP ₃	11.13	151.73	2.10	140.60
TP ₄	11.18	160.78	2.13	149.60
TP ₅	0.57	156.87	4.48	156.30
TP ₆	0.06	147.08	9.85	147.02
	42.19		7.78	139.30 139.27
	33.8		33.86	8.33 ✓
	8.33			

TRAV # 198

LEVELING From USGS TBM to NEW Well Loc.

July 19, 1950

HOT & Sunny

Sta $\pm S$ HI S EI

→ HENRY CARTER

T TBM $\begin{smallmatrix} 3 & 4 & 3 \\ 6.61 & 100.11 & 93.50 \end{smallmatrix}$

TP₁ $\begin{smallmatrix} 3 & 2 \\ 3.11 & 98.50 & 4.72 & 95.39 \end{smallmatrix}$

TP₂ $\begin{smallmatrix} 1.68 & 94.56 & 5.62 & 92.88 \end{smallmatrix}$

TP₃ $\begin{smallmatrix} 5.76 & 90.42 & 9.90 & 84.66 \end{smallmatrix}$

TBM#1 $\begin{smallmatrix} 5.23 & 85.19 \end{smallmatrix}$ →

CONC. POST. ABOUT 95 mi. S. OF WAUSAU

TP₄ $\begin{smallmatrix} 4.86 & 92.91 & 2.37 & 88.05 \end{smallmatrix}$

TP₅ $\begin{smallmatrix} 4.85 & 92.95 & 4.81 & 88.10 \end{smallmatrix}$

TP₆ $\begin{smallmatrix} 11.40 & 104.14 & 0.21 & 92.74 \end{smallmatrix}$

TP₇ $\begin{smallmatrix} 8.19 & 112.18 & 0.15 & 103.99 \end{smallmatrix}$

TBM#2 + 46.46 $\begin{smallmatrix} 5.17 & 107.01 \end{smallmatrix}$ →

BRIDGE SPIKE IN BASE 30" PEGAN 40'E

$\begin{smallmatrix} - 32.95 \\ + 13.51 \end{smallmatrix}$

$\begin{smallmatrix} - 32.95 & + 13.51 \end{smallmatrix}$ ✓

Hwy (77) 1.2 mi. S. OF WAUSAU PO.

TRAV # 198 CONT

RETRACE TO USGS TBM

STA	+S	HI	-S	EL.
	4 3			
TBM#2	5.15	112.16	3 3 5	107.01
TP1	0.49	104.50	8.15	104.01
TP2	0.71	93.52	11.69	92.81
TP3	5.67	92.92	6.27	87.25
TP4	3.45	91.40	4.97	87.95
TBM#1			6.11	85.29
VP5	8.50	93.33	6.57	84.83
TP6	5.73	98.62	0.44	92.89
TP7	4.79	100.32	3.09	95.53
TBM#65	34.49		6.72	93.60
	47.90		47.90	13.41 ✓
	13.41 ✓			

July 19, 1950

HOT + SUNNY

TRAVEL 199

LEVELING FROM BM 189 TO SUB BASE ROUND LAKE

July 20, 1950

Hot & Humid

Sta	+S	HI	-S	EL.
189	5.29	171.41		166.12
TP ₁	6.12	172.90	4.73	166.68
TP ₂	5.77	177.06	1.61	171.29
TP ₃	8.87	185.07	0.86	176.20
TP ₄	8.76	193.12	0.71	184.36
TP ₅	6.46	198.81	0.77	192.35
TP ₆	8.77	206.87	0.71	198.10

TBM #1

10.19 188.62 →

S. END Pump Base

TP ₇	9.01	215.45	0.43	206.44
TP ₈	7.03	221.43	1.05	214.40
TP ₉	8.28	227.84	1.87	219.56
TP ₁₀	10.42	237.83	0.43	227.41
TP ₁₁	11.75	249.34	0.24	237.59
TP ₁₂	6.07	252.96	2.45	246.89
TP ₁₃	6.50	256.10	3.36	249.60

SUB BASE

109.10

21.64
87.46 ✓

2.42 253.58
21.64 253.68 →

ROUND LAKE AT RR CROSSING SIGN BASE

NUMBER

STAMPED EL. 253.59 (7/24/50)

TRAV#149 CONT

— RETRACE to BM J-89 —

STA	+S	HI	-S	EI.
SUB BASE	⁷ 2.41	255.99	⁹⁶ 6.48	253.58
TP ₁	4.23	253.74	6.48	249.51
TP ₂	0.56	243.61	10.69	243.05
TP ₃	0.86	237.49	6.98	236.63
TP ₄	0.38	228.86	9.01	228.48
TP ₅	1.66	221.25	9.27	219.59
TP ₆	0.86	215.57	6.54	214.71
TP ₇	0.17	207.19	8.55	207.02
TP ₈	0.85	199.00	9.04	198.15
TBM#1			10.35	188.65
TP ₉	0.33	193.31	6.02	192.98
TP ₁₀	0.15	185.55	7.91	185.40
TP ₁₁	1.32	177.60	9.27	176.28
TP ₁₂	1.70	172.99	6.31	171.29
TP ₁₃	4.98	171.99	5.98	167.01 166.12
J-89	20.46		5.85	166.14
	107.90		107.90	87.44 ✓
	87.44 ✓			

July 24, 1950

Sunny & warm

= 253.59 ± .01 ✓

TRAVERSE 199 CONT

FROM SUB BASE R. LAKE TO W-2194

July 24, 1950

HIT + SUNNY

STA	+S	NI	-S	EI
SUB BASE	3.89	257.48		253.59
TP ₁	11.77	268.98	0.27	257.21
TP ₂	5.80	271.89	2.89	266.09
TP ₃	0.16	262.67	9.38	262.51
TP ₄	0.83	252.51	10.99	251.68
TP ₅	0.39	241.04	11.86	240.65
TP ₆	3.54	239.88	4.70	236.34
TP ₇	1.22	229.34	11.76	228.12 →
TP ₈	0.73	218.35	11.72	217.62
TP ₉	1.37	209.07	10.65	207.70
TBM H3	29.70		5.41	203.66 →
	79.63		79.63	49.93 ✓
	49.93 ✓			

SPIRE IN 'T' RD INT.

W. POST AT FRONT STEPS OF GEORGE SEYMOUR'S HOUSE -

TRAY # 199 CONT
RETRACE to SUB BASE

STA	TS	HI	-S	EL.
TBM#3	4.90	208.56	23.4	203.66
W-2194 JK			7.83	200.73 GRND.
TP1	9.27	216.90	0.93	207.63
TP2	11.88	228.10	0.68	216.22
TP3	10.74	238.12	0.72	227.38
TBM#2A			9.99	228.13
TP4	8.11	243.00	3.23	234.89
TP5	11.54	254.50	0.04	242.96
TP6	10.26	264.60	0.16	254.34
TP7	8.75	272.34	1.01	263.59
TP8	4.07	270.25	6.16	266.18
TP9	0.82	259.82	11.25	259.00
SUB BASE	80.34 ✓		6.15	253.67
	<u>30.33</u>		30.33	50.01 ✓
	50.01 ✓			

July 24, 1950

Cloudy + cool

RAIN -

TRAV # 200
LEVELING FROM BM F89 TO COMPASS LAKE

July 24, 1950

cloudy & warm

Sta	+S	HI	-S	EL.
F89	¹²³ 1.12	232.14		231.02
TP ₁	0.36	220.82	²³ 11.68	220.46
TP ₂	0.38	209.63	11.57	209.25
TP ₃	6.70	205.21	11.12	198.51
TP ₄	11.78	216.69	0.30	204.91
TP ₅	11.30	227.84	0.15	216.54
TP ₆	1.16	228.23	0.77	227.07

TBM #1 $\begin{array}{r} 32.80 \\ 35.76 \\ \hline 2.96 \end{array}$ $\begin{array}{r} 0.17 \\ 228.06 \end{array} \rightarrow \begin{array}{r} 35.76 \\ 2.96 \end{array}$

RR SPIKE IN CENTER OF 'T' INT. IN N. EDGE
OF COMPASS LAKE

TBM #1	²² 0.14	228.20		228.06
TP ₁	0.15	216.70	³³ 11.65	216.55
TP ₂	0.52	205.44	11.78	204.92
TP ₃	11.18	209.64	6.98	198.46
TP ₄	10.61	219.97	0.28	209.36
TP ₅	11.93	231.70	0.20	219.77
F89	34.53		0.66	231.04
	$\begin{array}{r} 31.55 \\ 2.98 \end{array}$		$\begin{array}{r} 31.55 \\ 2.98 \end{array}$	

TRAV# 200

July 24, 1950

Sta	+S	HI	-S	El.
TBM#1	0.70	228.75		228.05
TP ₁	0.25	217.09	11.91	216.84
TP ₂	1.48	210.63	7.94	209.15
WEH well	2.43		11.55	199.08
	<u>31.90</u>		<u>31.40</u>	28.97
	28.97			

→ NE 1/4 SEC 12 T 2 N R 12 W
SULLIVAN well

well.	11.60	210.68		199.08
TP ₁	7.93	217.07	1.54	209.14
TP ₂	11.76	228.60	0.23	216.84
TBM#1	31.29		0.56	228.04
	<u>2.33</u>		<u>2.33</u>	28.96
	28.96			

TRAV# 201

LEVELING FROM USFS BM TO JUSTICE WELL

Sta	+S	HI	-S	EL.
BM	8.85	139.85		131.0°
TP ₁	1.62	132.57	8.90	130.95
TP ₂	8.22	129.28	11.51	121.06
TP ₃	8.10	135.19	2.19	127.09
TBM#1	26.79		3.78	131.41
	26.38		26.38	0.41✓
	0.41✓			

TBM#1	2.66	134.07		131.41
TP ₁	2.25	129.34	6.98	127.09
TP ₂	11.54	132.62	8.26	121.08
TP ₃	9.07	140.07	1.62	131.00
BM	25.52		9.05	131.02
	25.91		25.91	0.39✓
	0.39✓			

July 23, 1950

HOT + SUNNY

NEW WELL (P.L. JUSTICE)

S $\frac{1}{2}$ OF NW $\frac{1}{4}$ SEC 33 T5N R12W
 500' N + 115' W OF SE COR NW $\frac{1}{4}$

TBM#1 IS BRIDGE SPIKE IN
 FENCE POST ABOUT 35' SE OF JUSTICE
 HOUSE: ELV. = 131.4

TRAV# 202

LEVELING FROM BM Q26 to W- 1792

STA +S HI -S EL

Q26 8.87 165.44 156.57

TP₁ 10.00 175.21 0.23 165.21

TP₂ 9.83 185.03 0.01 175.20

W-1792 JK 28.70 5.81 179.22 9^{END}

P.BASE 4.17 3.93 181.10

24.53 ✓ 4.17 24.53

P.BASE 3.97 185.07 181.10

TP₁ 0.49 173.79 11.77 173.30

TP₂ 1.78 165.43 10.14 163.65

Q26 1.24 8.83 156.60

30.74 30.74 24.50 ✓

24.50

July 26, 1950

WARM & HUMID

7 SW COR NE 1/4 SEC 2 T 6 N R 12 W

TIRAV#203

LEVELING FROM SRDBM 36A to W-932

STA	+S	HI	-S	EL.
BM#36A	9.00	143.14	2	134.14 →
TP ₁	6.74	149.02	0.86	142.28
TP ₂	6.37	154.19	1.20	147.82
TBM#1			3.26	150.93 F. PLUG
TOPRAIL			4.71	149.48
TP ₃	7.29	151.53	9.95	144.24
TP ₄	4.86	148.97	7.42	144.11
W-932	34.26		3.33	145.64 PB
W-932	23.94		4.51	144.46 GRAD
JK	10.32		23.94	10.32 ✓
TP ₄	7.87	151.98		144.11
TP ₂			4.19	147.79
TP ₃	1.95	146.66	7.27	144.71
TP ₁	3.39	142.38	7.67	138.99
BM#36A	13.21		8.20	134.18
	23.14		23.14	9.93 ✓
	9.93			

July 27, 1950 cloudy + RAIN

BM 36A EL. 134.14

SE COR E. HEADWALL CULVERT

AT S. City Limit FRAGVILLE (LITTLE CREEK)

ON ST. RD # (77)

SRD BM #15 EL. 92.91

NE COR BRIDGE ABOUT 3.7

mi. N CHIPLEY - RD (77)

SRD BM #7 EL. 87.54

NE COR. HEROD. BRIDGE

1.5 mi. N CHIPLEY - RD (77)

W-932 in SE SE NE SEC 3 CN 13W

SRD BM'S ALONG US 90 IN THE VICINITY OF SNEADS

FLA.

END OF PROJECT 1101+07

BM# 103	NAIL IN SIDE 10" CHERRY
" 102	" " ROOT 60" OAK
" 101	" " " 40" "
" 100	" " " SIDE 6 "
" 99	" " " " 8 "
" 98	" " " ROOT 10 Mulberry
" 97	" " " " 60 OAK
" 96	" " " SIDE 12 Pecan
" 95	" " " ROOT 24 "
" 94	" " " " 36 OAK
" 93	" " " " 36 "

115' LT.	STA: 1102+90	EL 95.30
100 LT	" 1092+75	" 99.16
125' RT	" 1077+48	" 83.42
90' RT	" 1064+00	" 91.50
75 RT	" 1053+10	" 97.99
130 RT	" 1044+25	" 91.65
85 LT	" 1035+90	" 114.96
70 LT	" 1024+70	" 154.68
80 LT	" 1015+30	" 154.25
100 RT	" 1004+50	" 125.87
115 RT	" 995+60	" 117.71

TRA # 204

LEVELING FROM BM TALLY U6 TO OLD BAINBRIDGE Rd.

SEPT 13, 1950

HOT & SUNNY

STA	+S	HI	-S	EL.
BM-U6	³⁴ 3.93	108.08		104.15
TP ₁	9.30	111.47	⁶ 5.91	102.17
TP ₂	11.66	121.58	1.55	109.92
TP ₃	8.71	130.24	0.05	121.53
TP ₄	6.21	135.66	0.79	129.45
TP ₅	11.35	146.52	0.49	135.17
TP ₆	11.75	156.79	1.48	145.04
TP ₇	10.55	167.10	0.24	156.55
TP ₈	2.05	167.47	1.68	165.42
TP ₉	2.23	162.54	7.16	160.31
TP ₁₀	<u>1.23</u>	154.82	8.95	153.59

TBM #1 +78.97 7.80 147.02 →

$$\begin{array}{r} -36.10 \\ +42.87 \end{array}$$

$$-36.10 + 42.87 \checkmark$$

EIV. DIFF. + 42.87 CHECK

R.R. SPIKE IN & INT. OF L. JACKSON DETOUR

ROAD & OLD BAINBRIDGE Hwy.

TRAVEL #204 CONT-
RETRACE to PBM UG

SEPT. 13, 1950

HOT + Sunny

STA	+S	HI	-S	E/V.
TBM #1	⁴ 8.65	155.67		147.02
TP ₁	8.24	161.82	³ 2.09 ⁵	153.58
TP ₂	7.46	167.71	1.57	160.25
TP ₃	1.63	167.03	2.31	165.40
TP ₄	0.39	156.90	10.52	156.51
TP ₅	2.08	147.13	11.85	145.05
TP ₆	1.56	137.07	11.62	135.51
TP ₇	2.03	132.20	6.90	130.17
TP ₈	2.48	127.19	7.49	124.71
TP ₉	0.22	116.25	11.16	116.03
TP ₁₀	<u>1.95</u>	108.34	9.86	106.39
B.M. UG +36	.69		<u>4.18</u>	<u>104.16</u>
	-79.55		-79.55	-42.86 ✓
	-42.86			

TBM #1 IS: 104.15

42.865
147.015

EL. DIFF. -42.16 CHECK

TRAV# 204 CONT

LEVELING FROM TBM#1 to USE SLUCK LEON 116

SEPT 13, 1950

AFT + SUNNY

STA	+S	HI	-S	EL.
TBM#1	⁵⁷⁴ 10.15	157.17		147.02
TP ₁	7.41	163.89	¹⁶⁹ 0.69	156.48
TP ₂	1.03	154.65	10.27	153.62
TP ₃	0.66	143.85	11.46	143.19
TP ₄	0.93	133.05	11.73	132.12
TP ₅	1.17	^{123.07} 124.07	11.15	^{121.90} 122.90
TP ₆	8.66	130.36	2.37	121.70
TP ₇	10.80	139.51	1.65	128.71
TP ₈	11.52	150.35	0.68	138.83
TP ₉	10.60	160.61	0.34	150.01
TP ₁₀	10.11	170.56	0.16	^{160.45} 164.10
TBM#2			<u>5.46</u>	<u>165.10</u> →
TP ₁₁	9.73	180.05	0.24	170.32
TP ₁₂	10.20	189.56	0.69	179.36
TP ₁₃	8.12	197.30	0.38	189.18
TP ₁₄	8.83	205.70	0.43	196.87
TP ₁₅	10.90	216.13	0.47	205.23
TP ₁₆	120.82		0.18	^{214.95} 215.95
	<u>52.89</u> 67.93		<u>52.89</u>	67.93

RR SPIKE IN & INT. OF T' ROAD ENTERING
 OLD BAINBRIDGE RD. FROM WEST 1 1/2 MI.
 S. OF TBM#1

SEPT. 13, 1950

TP ₁₆	4.01	218.96		214.95	
TP ₁₇	4.76	220.94	2.78	216.18	
TOP MD	+8.77		2.65	218.29	→
	-7.64				
C.F.	+1.13		5.12	215.72	→
RM			4.86	216.08	→
			-7.64	+1.13	✓

RETICLE TO TBM 41

RM	2.62	218.70		216.08	
TP ₁	0.49	215.36	3.83	214.87	
TP ₂	3.11		10.44	204.92	→
	14.27		14.27	11.16	
	11.16				

TOP 3/4" BOARD AT RECORDER (CON 116)

CONCRETE FLOOR OF ROOM

SW CONC. BASE OF WATER TANK

(CHISELED ☐) MILLARD CALDWELL HOME

RR SPIKE ☐ AT CATTLE CROSSING SIGN JUST
NORTH OF DRIVEWAY TO CALDWELL HOME.

TRAV # 204 CONT.
RETRACE CONT

Sta	+S	HI	-S	El.
TP ₁	1.93	206.85 205.85		204.92
TP ₂	2.32	199.15	9.02	196.83
TP ₃	1.64	191.34	9.45	189.70
TP ₄	0.51	181.35	10.50	180.84
TP ₅	0.20	181.00 170.00	11.55	169.80
TBM#2			6.88	164.12 163.12
TP ₇	0.15	159.16	11.99	159.01 157.01
TP ₈	0.30	149.70	11.76	147.40
TP ₉	1.25	137.35	11.60	136.10
TP ₁₀	2.31	130.43	9.23	128.12
TP ₁₁	1.47	123.05	8.85	121.58
TP ₁₂	11.03	131.08	3.00	120.05
TP ₁₃	11.44	141.86	0.66	130.42
TP ₁₄	11.23	152.15	0.94	140.92
TP ₁₅	10.29	162.00	0.44	151.71
TP ₁₆	1.58	156.46	7.12	154.88
TBM#1	+57.65		9.41	147.05
	-115.52		-115.52	-57.87 ✓
	-57.87 ✓			

SEPT 14, 1950

HOT & SUNNY

216.08	216.08	69.03
147.02	147.05	69.06
69.06	69.03	69.045
R.M. (LEON 116) 15: 147.02		
	+ 69.045	
	216.065	

→ EL. DIFF. - 57.87 CHECK

TRAV# 204 CONT. (HAVANA RD.)
LEVELING FROM TBM #1 to OLD QUINCY HWY

SEPT 14, 1950

HOT & SUNNY

STA TS HI -S EI

TBM#1 ^{1 2 3} 3.18 150.20 147.02

TP ^{1 2 3} 2.00 140.24 11.96 138.24

TP₂ 10.87 147.09 4.02 136.22

TP₃ 11.87 157.98 0.98 146.11

TP₄ 6.14 164.08 0.04 157.94

~~TP₅~~ ^{TP₅} 1.36 159.71 5.73 158.35

TBM#3 35.42 2.17 157.54 →

24.90
10.52 24.90 10.52

TBM#3 ^{1 3} 2.02 159.56 157.54

TP ^{1 2 1} 5.69 164.05 1.20 158.36

TP₂ 1.25 159.20 6.10 157.95

TP₃ 1.29 148.77 11.72 147.48

TP₄ 3.24 140.31 11.70 137.07

TP₅ 11.31 149.51 2.11 138.20

TBM#1 24.80 2.49 147.02

35.32
10.52 35.32 10.52 ✓

RR SPIKE IN SIDE 28" SHORT LEAF PINE 40'
SE of INT. HAVANA HWY WITH JACKSON
RETURN ROAD.

TRAV# 204

TBM#3	^{4 5} 0.38	157.92	^{2.6} 11.89	157.54	
TP ₁	0.05	146.08	11.89	146.03	
TP ₂	1.04	136.28	10.84	135.24	
TP ₃	0.37	125.69	10.96	125.32	
TP ₄	1.77	117.08	10.38	115.31	
TP ₅	4.67	115.83	5.92	111.16	
TBM#4			2.04	113.79	→
TP ₆	2.16	107.72	10.27	105.56	
TP ₇	4.48	103.24	8.96	98.76	→
TP ₈	6.93	107.14	3.03	100.21	
TP ₉ (RM)	7.54	113.24	1.44	105.70	→
TP ₁₀	8.30	120.16	1.38	111.86	
TOP TI' +	37.69		4.25	115.91	
CONC. BASE	-79.55		4.48	115.68	
	-41.86		-79.55	-41.86	✓

SEPT. 14, 1930

HOT & SUNNY

W. SIDE TOP CONC. CULVERT 3/8 mi. N.

DETOUR RD.

W. SIDE TOP CONC. CULVERT 1/2 mi. N.

DETOUR RD.

SPIKE IN BASE OF POLE SUPPORT ACROSS

US HWY 27 FROM LEON 115

→ W. F. CHRISTIAN well

TRAV#204

RETRACE to

TBM#3

SEPT 14, 1950

HOT + SUNNY

STA	+S	HI	-S	EL.
CONC. BASE	¹⁵ 4 4.77	120.45		115.68
TP ₁	1.61	113.47	⁵ 5 8.59	111.86

TP ₂ (TP ₃)	1.96	107.66	7.77	105.70 -RM
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SEPT 15, 1950

HOT + SUNNY

TP ₃	2.88	103.36	7.18	100.48
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TP ₄	11.80	110.57	4.59	98.77
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TP ₅	8.52	118.89	0.20	110.37
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TBM#4			5.12	113.77
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TP ₆	8.56	124.62	2.83	116.06
-----------------	------	--------	------	--------

TP ₇	11.37	134.32	1.67	122.95
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TP ₈	11.00	144.77	0.55	133.77
-----------------	-------	--------	------	--------

TP ₉	9.13	153.67	0.23	144.54
-----------------	------	--------	------	--------

TP ₁₀	8.09	161.24	0.52	153.15
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TBM#3 +79.69			3.72	157.52
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$$\begin{array}{r} -37.85 \\ +41.84 \end{array}$$

-37.85 +41.84 ✓

LEON 116 CONC. BASE IS.

157.54

-41.85

115.69

Top 't' = 115.92

EL. DIFF +41.84 CHECK

TRAVEL 104

LEVELING FROM RM (TR) to L. JACKSON GAUGE

SEPT 13, 1930

HOT & SUNNY

STA	+S	HI	-S	EL.
RM	³ 4.02	109.72		105.70 → 105.71
TP ₁	0.94	101.89	⁴ 8.77	100.95
TP ₂	5.17	101.51	5.55	96.34
TP ₃	5.11	101.49	5.13	96.38
TP ₄	4.71	101.59	4.61	96.88
TP ₅	4.95	101.36	5.18	96.41
TP ₆	4.96	101.44	4.88	96.48
TP ₇	4.04	100.70	4.78	96.66
TPM#5	+33.90		2.38	98.32 → 98.335
10.00 LEVEL	-41.28		5.76	94.94 → 94.955
	-7.38		-41.28	-7.38

TELEPHONE
BRIDGE SPIRE IN BASE OF POWER POLE

SUPPORT ACROSS HWY #29 FROM LEON 115

RR SPIKE PLACED VERTICALLY IN GUY POLE

77' NORTH OF WATER GAUGE ON EAST

SIDE OF HWY.

NAIL IN GAUGE AT 10.00 LEVEL

0.00 = 84.94 = 84.955

TRAV# 204

RETRACE FROM TBM#5 TO RM LEON 115

SEPT. 15, 1950

HOT & SUNNY

Sta	+S	HI	-S	EL.
TBM#5	⁵ 2.71	101.03		98.32
TP ₁	4.97	101.63	⁴ 4.37	96.66
TP ₂	4.40	101.47	4.56	97.07
TP ₃	4.78	101.85	4.40	97.07
TP ₄	4.77	101.87	4.75	97.10
TP ₅	4.57	101.58	4.86	97.01
TP ₆	4.80	102.10	4.28	97.30
TP ₇	9.82	110.03	1.89	100.21
RM	+40.82		4.32	105.71
	-33.43		-33.43	+7.39
	+7.39			

TRAV # 204

LEVELING FROM TBM#5 to TBM#6

SEPT. 19, 1950

MOST SUNNY

Sta	+5	HI	-5	El.
TBM#5	2.87	101.21		98.34 (cor)
TP ₁	6.99	104.18	4.02	97.19
TP ₂	8.92	112.83	0.27	103.91
TP ₃	10.21	122.81	0.23	112.60
TBM#6	+28.99		0.15	122.66 →
	- 4.67		- 4.67	+24.32
	+ 24.32			

BRIDGE SPIKE IN SIDE OF 26" OAK AT
NE COR. INT. HAVANA HWY + OLD
BAINBRIDGE RD.

TBM#6	^{2 1} 0.23	122.89		122.66
TP ₁	1.15	113.76	10.28	112.61
TP ₂	0.98	104.24	10.50	103.26
TP ₃	4.71	101.44	7.51	96.73
TBM#5	+7.07		3.10	98.34
	- 31.39		- 31.39	-24.32
	+ 24.32			

LEVELING FROM TBM #6 TO PHIPPS RES.

SEPT. 20, 1950

HOT & SUNNY

HEAT WAVES BAD

STA	+S	HI	-S	EL.
TBM #6	^{4.6} 3.44	126.10		122.66
TP ₁	1.26	117.63	^{4.5} ₃ 9.73	116.37
TP ₂	9.92	123.92	3.63	114.00
TP ₃	10.37	134.17	0.12	123.80
TP ₄	3.77	132.41	5.53	128.64
TP ₅	1.68	128.45	5.64	126.77
TP ₆	7.66	128.94	7.17	121.28
TP ₇	11.69	140.13	0.50	128.44
TBM #7	—		0.01	140.12 →
TP ₈	10.46	150.51	0.08	140.05
TP ₉	6.12	156.09	0.54	149.97
TP ₁₀	3.54	157.01	2.62	153.47
TP ₁₁	<u>1.54</u>	147.85	10.70	146.31
TBM #8	71.45		<u>4.42</u>	<u>143.43</u> →
	50.68		50.68	20.77
	20.77 ✓			

Mi. 50.6

TOP CONC. COR. POST OPPOSITE NEGRO
SCHOOL 0.7 MI. N OF TBM #6

RR SPIKE IN C OF OLD BAINBRIDGE RD. AT
INT OF LANE 1.0 MI. N. OF TBM #6

TRAV# 204

SEPT 20, 1950

HOT + SUNNY

STA	+S	HI	-S	E/.
TBM#8	⁶⁷ 3.46	146.89		143.43
TP ₁₂	7.83	152.15	⁶⁶ 2.57	144.32
TP ₁₃	7.13	158.94	0.34	151.81
TP ₁₄	6.77	161.89	3.82	155.12
TP ₁₅	4.22	163.50	2.61	159.28
TP ₁₆	2.02	159.82	5.70	157.80
TP ₁₇	2.72	151.52	11.02	148.80
TBM#9	3.98	148.44	7.06	144.46 →
TP ₁₈	1.08	140.77	8.75	139.69
TP ₁₉	1.80	133.50	9.07	131.70
TP ₂₀	2.71	127.82	8.39	125.11
TP ₂₁	7.08	130.49	4.41	123.41
TP ₂₂	8.70	138.35	0.84	129.65
TP ₂₃	5.94	142.69	1.60	136.75
TBM#10	65.44		8.59	134.10 →
	-74.77		-74.77	-9.33
	-9.33			

RR SPIKE IN C OF RD. 1.6 mi. N. OF

TBM#6

RR SPIKE IN C OF RD AT LANE & PHIPPS

PLANTATION 2.1 mi. N of TBM#6

TRM # 204

RETRACE to TBM # 6

STA	+S	HI	-S	EI.
TBM #10	8.42	142.52		134.10
TP ₁	1.40	138.28	5.64	136.88
TP ₂	1.80	131.26	8.82	129.46
TP ₃	4.21	127.67	7.80	123.46
TP ₄	10.92	138.33	0.26	127.41
TP ₅	10.25	148.23	0.35	137.98
TBM #9	7.01	151.45	3.79	144.44
TP ₆	9.69	160.42	0.72	150.73
TP ₇	5.10	163.62	1.90	158.52
TP ₈	1.58	160.29	4.91	158.71
TP ₉	3.78	159.03	5.04	155.25
TP ₁₀	2.01	154.49	6.55	152.48
TP ₁₁	2.02	148.31	8.20	146.29
TP ₁₂	9.86	152.86	5.31	143.00
TBM #8	—	—	4.89	143.42
TP ₁₃	5.32	157.43	0.75	152.11
TP ₁₄	83.37		6.70	150.73
	71.63		71.63	16.63 ✓
	16.63 ✓		66.74 ✓	

SEPT. 20, 1950

HOT + SUNNY

SEPT. 21, 1950

HOT + SUNNY

TRAV # 104

RETRACE CONT.

Sta	+S	HI	-S	EI.
TP ₄	^{4 4} 2.57	153.30		150.73
TP ₅	1.77	143.61	^{23 5} 11.46	141.84
TP ₆	0.74	133.07	11.28	132.33
TP ₇	3.39	125.42	11.04	122.03
TP ₈	8.10	132.29	1.23	124.19
TP ₉	7.14	134.96	4.47	127.82
TP ₁₀	0.81	124.10	11.67	123.29
TP ₁₁	2.18	116.70	9.58	114.52
TP ₁₂	9.39	125.82	0.27	116.43
TBM #6	+36.09		3.16	122.66
	-64.16		-64.16	-28.07 ✓
	78.07 ✓			

SEPT. 21, 1950

AOT & SUNNY

TRAV# 204

From TBM#10 to ORCHARD POND

SEPT 21, 1950

HOT & SUNNY

Sta +S HI -S E1.

TBM#10 ⁶⁺⁷ 5.57 139.67 134.10 ✓TP₁ 7.66 146.99 ^{3 5 6} 0.34 139.33TP₂ 0.67 137.20 10.46 136.53TP₃ 3.63 131.68 9.15 128.05

TBM#11 ——— 3.60 128.08 →

CENTER E. SIDE CRATLE GAP 1/4 mi. E. of TBM#11

TP₄ 11.94 140.80 2.82 128.86TP₅ 10.14 ^{150.65} 150.95 0.29 ^{140.21} 140.51TP₆ 4.50 ^{152.35} 152.65 2.80 ^{147.85} 148.15TBM#12 ——— 3.02 ^{149.33} 149.63 →

BRIDGE SPIKE IN COR. POST 0.5 mi. E TBM#10

TP₇ 5.28 ^{152.93} 153.23 4.70 ^{147.65} 147.95TP₈ 11.73 ^{164.55} 164.85 0.11 ^{152.82} 153.12TP₉ 11.63 ^{175.72} 176.02 0.46 ^{164.09} 164.37TBM#13 2.81 ^{172.12} 172.42 6.41 ^{169.31} 169.61 →

BRIDGE SPIKE IN ROOT OF 20" WATER OAK 10' SE

TP₁₀ 1.27 ^{161.94} 162.24 11.45 ^{160.67} 160.97

OF RD. 0.8 mi. E. OF TBM#10

TP₁₁ 4.31 ^{155.10} 155.40 11.15 ^{150.79} 151.09TP₁₂ 6.49 ^{161.40} 161.70 0.19 ^{154.91} 155.21TP₁₃ 7.57 ^{162.74} 163.04 6.23 ^{156.17} 155.49TP₁₄ 95.20 2.32 ^{160.42} 160.72^{68.88} 26.32 ✓ ^{68.88} 26.32 ✓

TRAV # 204

SEPT. 21, 1950

HOT & SUNNY

Sta	+S	NE	-S	E.L.
TP ₁₄	1.28	161.70		160.42
TP ₁₅	6.92	162.63	5.99	155.71
TP ₁₆	6.24	168.16	0.71	161.92
TBM #14	14.44		3.65	164.51
	10.35		10.35	4.09
	4.09			

RETRACE TO TBM #10

TBM #14	³ 3.61	168.12		164.50	→
TP ₁	1.54	162.66	³ 7.00	161.12	
TP ₂	5.99	161.66	6.99	155.67	
TP ₃	2.06	162.72	1.00	160.66	
TP ₄	6.35	161.48	7.59	155.13	
TP ₅	0.83	155.18	7.13	154.35	
TP ₆	9.42	160.70	3.90	151.28	
TP ₇	11.49	172.15	0.04	160.66	
TBM #13	41.29		2.85	169.30	
	36.50		36.50	4.79	
	4.79				

SW WALL OF OLD CONC. CATTLE GAP AT
CENTER DIVISION 10.6 MI. NE OF TBM #13

RETRACE - CONT'D

SEPT. 22, 1950

HOT & SUNNY

STA	HS	NI	-S	EI.
TBM#13	^{2 3 3} 5.68	174.98	^{3 4 3}	169.30
TP ₈	1.22	164.46	11.74	163.24
TP ₉	0.02	152.90	11.58	152.88
TP ₁₀	4.68	152.64	<u>4.94</u>	<u>147.96</u>
TBM#12	5.1		<u>3.34</u>	<u>149.30</u>
TP ₁₁	4.44	151.76	5.32	147.32
TP ₁₂	0.95	141.06	11.65	140.11
TP ₁₃	1.47	132.42	10.11	130.95
TBM#11	5.03	133.11	4.34	128.08
TP ₁₄	11.10	143.90	0.31	132.80
TP ₁₅	<u>1.00</u>	143.90	1.00	142.90
TBM#10+	35.59		<u>9.79</u>	<u>134.11</u>
	- 70.78		-70.78	-35.19 ✓
	- 35.19			

TRAVERSE 204

LEVELING FROM TBM # 14 TO ORCHARD POND

SEPT 22, 1950

NOT A SUNNY

STA	+S	HI	-S	EL.
TBM # 14	⁶ 5.89	170.40		164.51
TP ₁	4.07	165.33	⁶ 9.14	161.26
TP ₂	2.00	158.28	9.05	156.28
TP ₃	11.71	165.10	4.89	153.39
TP ₄	11.97	176.61	0.46	164.64
TP ₅	9.56	182.26	3.91	172.70
TBM # 15	8.63	190.01	0.88	181.38 →
TP ₆	11.75	201.48	0.28	189.73
TP ₇	8.07	209.24	0.31	201.17
TP ₈	5.38	204.47	10.15	199.09
TP ₉	6.16	210.53	0.10	204.37
TP ₁₀	2.41	202.14	10.80	199.73
TP ₁₁	8.55	203.87	6.82	195.32
TP ₁₂	<u>2.73</u>	199.32	7.38	196.49
TBM # 16	+98.88		<u>7.83</u>	191.39 RM →
	-72.00		-72.00	+26.88
	+26.88			

RR SPIKE IN HARD CLAY ON OLD BOY SCOUT
RD. 0.5 mi. NE TBM # 14

191.39

2.35

193.74

.90

192.84 = LEVEL OF REC.
BASE

CENTER OF NE CONC. TOWER BASE BETWEEN
TWO IRON STRIPS CHISELED SQUARE AT
LEON 28

TRAV # 204

RETRACE TO TBM # 14

SEPT 22, 1950

NOT + SUNNY

STA	+S	HI	-S	EL.
TBM # 16	⁵ 7.57	198.96		191.39
TP ₁	4.52	202.95	⁴ 0.53	198.43
TP ₂	6.89	202.05	7.79	195.16
TP ₃	8.22	209.91	0.36	201.69
TP ₄	6.36	206.48	9.79	200.12
TP ₅	0.03	202.09	4.42	202.06
TP ₆	0.93	191.76	11.26	190.83
TBM # 15	1.33	182.72	10.37	181.39
TP ₇	4.72	177.26	10.18	172.54
TP ₈	1.37	167.64	10.99	166.27
TP ₉	1.89	158.41	11.12	156.52
TP ₁₀	10.13	164.09	4.45	153.96
TP ₁₁	5.79	166.59	3.29	160.80
TP ₁₂	<u>5.33</u>	170.74	1.18	165.41
TBM # 14	165.08		<u>6.19</u>	164.55
	<u>-91.92</u>		<u>+91.92</u>	<u>-26.84</u>
	-26.84			

263.6

LEVELING FROM TBM#13 TO W-406

STA	+S	HI	-S	EL.
TBM#13	³ + ⁸ 2.78	172.09		169.31
TP ₁	1.50	165.17	³ + ⁵ 8.42	163.67
TP ₂	11.59	174.05	2.70	162.46
TP ₃	5.27	178.92	0.40	173.65
TP ₄	6.05	178.25	6.72	172.20
TP ₅	0.35	173.49	5.11	173.14
TBM#17	—		1.17	172.32
TP ₆	11.24	182.26	2.47	171.02
TP ₇	7.16	188.54	0.88	181.38
TBM#18	—		0.68	187.86
TP ₈	0.18	177.71	11.01	177.53
TP ₉	0.22	166.12	11.81	165.90
TP ₁₀	0.07	154.65	11.54	154.58
TP ₁₁	0.06	143.05	11.66	142.99
TP ₁₂	11.86	154.85	0.06	142.99
TP ₁₃	11.44	165.62	0.67	154.18
TP ₁₄	11.08	176.69	0.01	165.61
TP ₁₅	+ 80.85		0.77	175.92
	- 74.24			
	+ 6.61			

SEPT 25, 1950

COOL, SUNNY WITH
GUSTY WINDBRIDGE SPIKE INTO PINE STUMP ABOUT
1/2 MI. E TBM #13 ON S. SIDE OF ROADBRIDGE SPIKE INTO PINE STUMP
5/8 MI. E TBM #13 IN "Y" OF
ROADS TO J.H. PHIPPS HOUSE & J.S. PHIPPS
HOUSE

SEPT 25, 1950

SUNNY & WINDY

STA	+S	HI	-S	EI.	
TP ₅	11.41	187.33		175.92	
TP ₆	9.11	195.19	1.25	186.08	→ N. EDGE CENTER CATTLE GAP AT N H WHIPPS
TP ₇	11.54	206.60	0.13	195.06	DRIVEWAY
TBM#9	1.74	205.92	2.42	204.18	→ TOP BRICK AT CENTER OF DRIVEWAY
TP ₈	1.01	199.91	7.02	198.90	LINE ON FRONT PORTICO OF HOUSE
TP ₉	4.69	195.40	9.20	190.71	
W-406 +	39.50		4.55	190.85	→ CONC. FLOOR OF PUMP ROOM -
-	24.57		+24.57	+14.93	✓
+	14.93				

LEON

RETRACT

* TBM#13

W-406	² 5.28	196.13	¹³ 3	190.85	
TP ₁	9.67	205.74	0.06	196.07	
TBM#19	1.90	206.07	1.57	204.17	
TP ₂	1.06	195.32	11.81	194.26	
TP ₃	1.66	187.75	9.23	186.09	
TP ₄	2.18	178.39	11.54	176.21	
TP ₅	21.75		11.89	166.50	
	46.10		46.10	14.35	
	24.35				

TRAV # 204

SEPT 25, 1950

Sunny & windy

STA	+S	HI	-S	EL.
TP ₅	^{3 6 5} 1.15	167.65		166.50
TP ₆	0.84	156.69	^{4 4 4} 11.80	155.85
TP ₇	1.89	147.33	11.25	145.44
TP ₈	11.41	150.64	8.10	139.23
TP ₉	11.78	162.28	0.14	150.50
TP ₁₀	11.45	173.43	0.30	161.98
TP ₁₁	11.05	184.40	0.08	173.35
TP ₁₂	5.78	189.98	0.20	184.20
TBM #18	9.		2.09	187.89
TP ₁₃	1.11	181.90	9.19	180.79
TP ₁₄	5.10	178.64	8.36	173.54
TP ₁₅	4.82	178.39	4.87	173.77
TP ₁₆	2.34	170.87	10.06	168.53
TP ₁₇	<u>9.22</u>	170.47	9.92	160.95
TBM #18	+78.24		<u>1.12</u>	169.35
	-75.39		-75.39	+2.85 ✓
	+2.85			

190.85

190.85

169.35

169.31

21.50

21.54

21.52

37.1

189.31

190.83

NE 1/4 SEC 21 T 2N R 1W

TRAV #205
LEVELING FROM USCHESBM N47 T.O.W. - 1892

SEPT 27, 1950

COOL + SUNNY

STA +S HI -S EL.

BM N47 3.12 41.93 7 8 7 38.81 →

WOODVILLE

Mi. AT INT. = 29.8

TP1 6.44 43.77 4.60 37.33

TP2 2.50 37.91 8.36 35.41

TP3 4.82 37.23 5.50 32.41

TP4 8.93 43.60 2.56 34.67

TP5 6.45 47.98 2.07 41.53

TP6 3.45 48.76 2.67 45.31

TP7 6.38 51.18 3.96 44.80

TBM #1 2.42 51.27 2.33 48.85 →

RR SPIKE IN C OF NATURAL BRIDGE RD. ABOUT

TP8 5.60 51.71 5.16 46.11

1.1 MI. E. OF WOODVILLE INT.

TP9 2.86 49.59 4.98 46.73

TP10 3.27 45.77 7.09 42.50

TP11 3.31 44.57 4.51 41.26

TP12 2.44 41.12 5.89 38.68

TP13 5.62 40.14 6.60 34.52

TBM #2 4.70 39.03 5.81 34.33 →

RR SPIKE IN C OF N.B. RD. 2.2 MI. E OF

TP13 3.54 37.38 5.19 33.84

WOODVILLE INT.

TP14 75.85 88.89 11.31 26.07

12.74 88.59 12.74

TRAVER 205 CONT.

STA	+S	HI	-S	EI.
TP ₁₄	^{3 8} 3.56	29.63		26.07
TP ₁₅	3.46	30.58	^{9 7} 2.51	27.12
TP ₁₆	4.95	30.80	4.73	25.85
TP ₁₇	4.19	32.13	2.86	27.94
TP ₁₈	3.79	29.27	6.65	25.48
TBM #3	5.06	29.26	5.07	24.20 →
TP ₁₉	4.14	29.85	3.55	25.71
TP ₂₀	3.49	29.71	3.63	26.22
TP ₂₁	3.30	27.22	5.79	23.92
TP ₂₂	5.72	27.02	5.92	21.30
TP ₂₃	8.21	30.00	5.23	21.79
TBM #4	1.99	29.00	2.99	27.01 →
TP ₂₄	2.47	25.66	5.81	23.19
TP ₂₅	4.50	25.60	4.56	21.10
TP ₂₆	4.47	25.80	4.27	21.33
TP ₂₇	4.79	27.56	3.03	22.77
TBM #5	68.09		0.49	27.07 →
	67.09		67.09	1.00
	1.00			

SEPT 27, 1950

 COOL & SUNNY WITH
SOME SMOKE

 RR SPIKE IN E N.B. RD. ABOUT 3.2 mi. E
WOODVILLE INT.

 RR SPIKE IN E OF N.B. RD. ABOUT 4.2 mi.
E OF WOODVILLE INT.

 RR SPIKE IN E OF N.B. RD. ABOUT 5.0 mi. E
OF WOODVILLE INT. - ON TOP OF LOW HILL.

TRAV # 205

STA	+S	NI	-S	E1
TBM #5	3.41	30.48		27.07
TP28	5.39	27.00	8.87	21.61
TP29	8.01	27.97	7.04	19.96
TP30	2.50	25.98	4.49	23.48
TP31	6.36	24.01	8.33	17.65
TP32	4.15	23.41	4.75	19.26
TP33	6.30	23.05	6.66	16.75
TP34	8.57	29.12	2.50	20.55
TBM #6	44.69		2.10	27.02 →
W-1892	44.74		8.53	20.59
W	0.05 ✓		44.74	0.05 ✓

SEPT 27, 1960

COOL, CLEAR, BUT
QUITE SIMPLY

SE COR OF BASE  OF MONUMENT AT
NATURAL BRIDGE

TRAV# 205
RETRACE

Sta	+S	HI	-S	EI.
TBM#6	^{2 1} 2.04	29.06		27.02
TP ₁	2.31	22.87	^{3 1} 8.50	20.56
TP ₂	5.64	22.71	5.80	17.07
TP ₃	4.48	23.69	3.50	19.21
TP ₄	9.12	26.93	5.88	17.81
TP ₅	2.40	27.12	2.21	24.72
TP ₆	<u>2.03</u>	28.63	5.52	21.60
TBM#5	<u>33.02</u>		<u>1.57</u>	<u>27.06</u>
	<u>32.98</u> 0.04 ✓		<u>32.98</u>	0.04 ✓
TBM#5	^{4 5} 0.90	27.96		27.06
TP ₇	3.90	26.49	^{3 3} 5.37	22.59
TP ₈	3.88	24.98	5.39	21.10
TP ₉	3.36	25.42	2.92	22.06
TP ₁₀	5.73	27.17	3.98	21.44
TBM#4	3.65	30.62	0.20	26.97
TP ₁₁	<u>5.48</u>	27.16	8.94	21.68
TP ₁₂	<u>26.90</u>		<u>6.13</u>	<u>21.03</u>
	<u>32.93</u> 4.03		<u>32.93</u>	6.03

SEPT 27, 1950

COOL, Smoky

SEPT 28, 1950

cloudy, HAZY +
COOL.

TRACE # 205
RETRACE CONT

SEPT 28, 1950

cloudy & cool
WITH HAZE

STA	+S	HI	-S	EL.
TP ₁₂	7.01	28.04		21.03
TP ₁₃	5.58	30.55	^{7.5} 3.07	24.97
TP ₁₄	4.89	30.03	5.41	25.14
TP ₁₅	3.92	28.90	5.05	24.98
TBM#3	—	—	4.75	24.15
TP ₁₆	5.47	30.07	4.30	24.60
TP ₁₇	5.24	32.75	2.56	27.51
TP ₁₈	4.87	30.66	6.96	25.79
TP ₁₉	2.95	29.71	3.90	26.76
TP ₂₀	9.49	38.95	0.25	29.46
TP ₂₁	5.86	39.62	5.19	33.76
TBM#2	—	—	5.31	34.31
TP ₂₂	4.25	39.57	4.30	35.32
TP ₂₃	7.48	44.18	2.87	36.70
TP ₂₄	5.70	46.17	3.71	40.47
TP ₂₅	7.38	48.55	5.00	41.17
TP ₂₆	6.23	51.83	2.95	45.60
TP ₂₇	86.32		4.97	46.86
	60.49		60.49	25.83
	25.83			

TRAY #205
RETRACE TBM

STA	+S	HI	-S	EI.
TP ₂₇	^{6.4} 3.85	50.71		46.86
TBM #1	2.24	51.12	^{4.4} 1.83	48.88
TP ₂₈	3.71	48.63	6.20	44.92
TP ₂₉	2.76	48.00	5.39	45.24
TP ₃₀	1.86	43.59	6.27	41.73
TP ₃₁	1.98	37.34	8.23	35.36
TP ₃₂	5.59	37.99	4.94	32.40
TP ₃₃	9.53	43.76	3.76	34.23
TP ₃₄	4.64	42.06	6.34	37.42
N-47 +	36.16		3.19	38.87 (38.81)
-	44.15		-44.15	-7.99 ✓
-	7.99			

SEPT 28, 1950

COOL, CLOUDY WINDY

SAME HAZE

TBM #6 AT NATURAL BRIDGE

15'	38.81	38.87	(26.99) ±.02
	27.02	27.02	
	11.79	11.85	
	11.85		
2	23.64	38.81	
	11.82	11.82	
			63 (26.99) ±.03

TRAV # 206

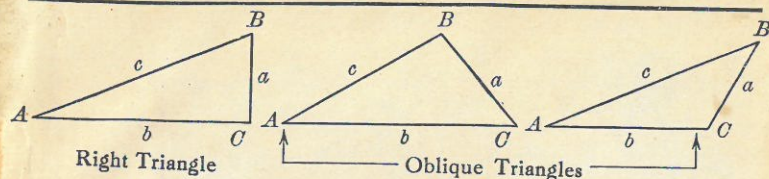
LEVELING FROM BM BONIFAY TO NEW CITY, WELLS

OCT 16, 1950

Sta.	+S	HI	-S	EL.
BM	1.95	162.29		160.34
TP.	1.82	152.19	11.92	150.37
Well Floor	3.77		9.65	142.54
	21.57		21.57	17.80 ✓
	17.80 ✓			

93.37
5.32
88.69
71.63
17.06

TRIGONOMETRIC FORMULÆ



Solution of Right Triangles

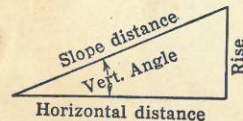
For Angle A. $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{a}$, $\operatorname{cosec} = \frac{c}{a}$

Given	Required	
a, b	A, B, c	$\tan A = \frac{a}{b} = \cot B, c = \sqrt{a^2 + b^2} = a \sqrt{1 + \frac{b^2}{a^2}}$
a, c	A, B, b	$\sin A = \frac{a}{c} = \cos B, b = \sqrt{(c+a)(c-a)} = c \sqrt{1 - \frac{a^2}{c^2}}$
A, a	B, b, c	$B = 90^\circ - A, b = a \cot A, c = \frac{a}{\sin A}$
A, b	B, a, c	$B = 90^\circ - A, a = b \tan A, c = \frac{b}{\cos A}$
A, c	B, a, b	$B = 90^\circ - A, a = c \sin A, b = c \cos A$

Solution of Oblique Triangles

Given	Required	
A, B, a	b, c, C	$b = \frac{a \sin B}{\sin A}, C = 180^\circ - (A + B), c = \frac{a \sin C}{\sin A}$
A, a, b	B, c, C	$\sin B = \frac{b \sin A}{a}, C = 180^\circ - (A + B), c = \frac{a \sin C}{\sin A}$
a, b, C	A, B, c	$A + B = 180^\circ - C, \tan \frac{1}{2}(A - B) = \frac{(a - b) \tan \frac{1}{2}(A + B)}{a + b}$ $c = \frac{a \sin C}{\sin A}$
a, b, c	A, B, C	$s = \frac{a + b + c}{2}, \sin \frac{1}{2}A = \sqrt{\frac{(s - b)(s - c)}{bc}}$ $\sin \frac{1}{2}B = \sqrt{\frac{(s - a)(s - c)}{ac}}, C = 180^\circ - (A + B)$
a, b, c	Area	$s = \frac{a + b + c}{2}, \text{area} = \sqrt{s(s - a)(s - b)(s - c)}$
A, b, c	Area	$\text{area} = \frac{b c \sin A}{2}$
A, B, C, a	Area	$\text{area} = \frac{a^2 \sin B \sin C}{2 \sin A}$

REDUCTION TO HORIZONTAL



Horizontal distance = Slope distance multiplied by the cosine of the vertical angle. Thus: slope distance = 319.4 ft. Vert. angle = $5^\circ 10'$. From Table, Page IX. $\cos 5^\circ 10' = .9959$. Horizontal distance = $319.4 \times .9959 = 318.09$ ft.
Horizontal distance also = Slope distance minus slope distance times (1 - cosine of vertical angle). With the same figures as in the preceding example, the following result is obtained. $\cos 5^\circ 10' = .9959$. $1 - .9959 = .0041$. $319.4 \times .0041 = 1.31$. $319.4 - 1.31 = 318.09$ ft.

When the rise is known, the horizontal distance is approximately:—the slope distance less the square of the rise divided by twice the slope distance. Thus: rise = 14 ft., slope distance = 302.6 ft. Horizontal distance = $302.6 - \frac{14 \times 14}{2 \times 302.6} = 302.6 - 0.32 = 302.28$ ft.