

W  
628



# EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and  
SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

Distances from Center of Roadway for Cross-Sectioning  
Roadway 16 feet wide. Side Slopes 1 on 1.  
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be  $30.6 + (20 - 16) \div 2$  or 2 ft. added to  $30.6 = 32.6$ . For slopes of 1 on  $1\frac{1}{2}$  see inside of back cover.

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The paper stock of this book is made of a high grade 50% rag paper having a water resisting surface and is sewed with Bing Special Enamel Waterproof Thread.

Made in U. S. A.

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JAN 1 1955



~~INDEX~~

Item #8-El Monte Pipe Line

Page

- 1-24 - Levels - Main Line #1 ('B' Line)
- 26-37 - Levels "A" Line.
- 39-44 - Levels Main Line No 1.
- 45-79 - Levels "A" & No 1 Line



Pipe Line EL Monte Pump Plant to Grantville

E of Pipe @ 16' off Pipe Line

Sta B.S. Hi F.S. Rod Elev

Main Line #1 should be 432.7  
 433.71 ✓

A #1 5.41 439.12 ✓

South Stub in Res. 7.65 431.47

North Stub in Res. 7.65 431.47

18" Over Flow Pipe 7.80 431.32

12" Over Flow Pipe 7.97 431.15

Top of Res. 5.20 433.92

Bottom of Res. 11.99 429.13

Shot on West side of Road on Over Flow 9.53 429.59

0+85 Power Pole

1+00 @ 5.2 433.9

" E 5.5 433.6

1+49 Power Pole Left Rd

1+50 @ 5.3 433.8

" E 5.5 433.6

2+00 @ 5.7 433.4

" E 6.0 433.1

2+50 @ 5.9 433.2

" E 6.4 432.7

Turn Page 3

5.41

0.0

433.71

5.41

439.12

These levels in error by 1.0 see note p. 3 11/13/45

A Messersmith

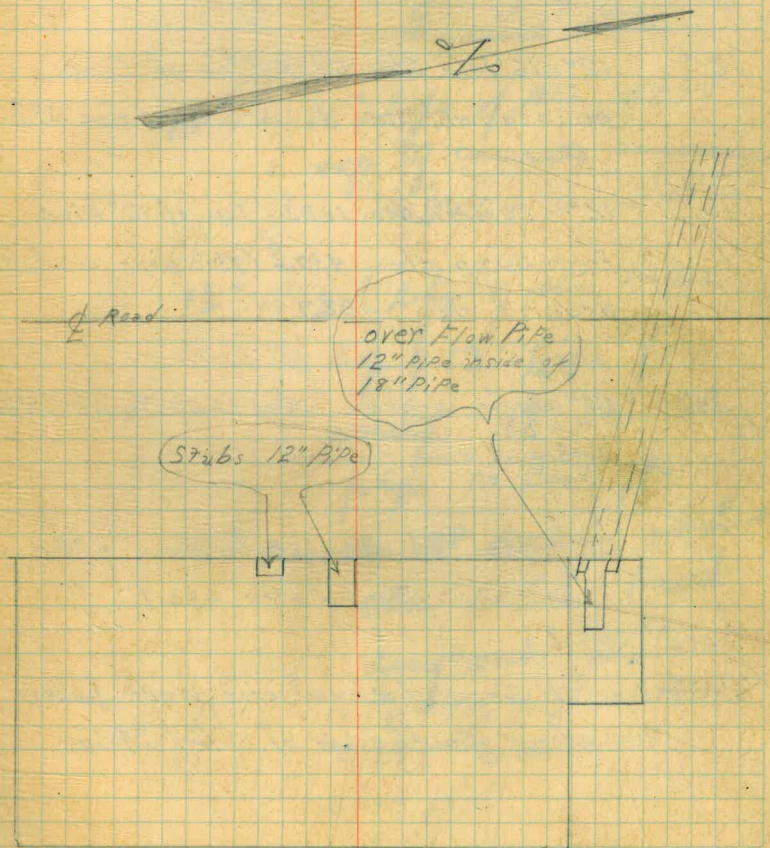
& Malhotra

Nov. 19, 1941

U.S. Geological Survey B.M. Elev. 439.83 ✓

Gaging Station.

Diff. of 6.121 For City B.M. Elev. 433.71 ✓





Elevations on Existing Pipes - Vicinity  
of El Monte Plant. City Datum  
Obtained March 3, 1942 by Hill of City Water Dept.

B.M. used = 432.7

4" steel septic Tank left Sta. 2+93

Top elev. = 430.2 - Ground elev. = 431.6

30" - 30" steel: 17' left Sta. 1+50

Top elev. = 428.9 - Ground elev. 432.6

12" 12" - 16' left Sta. 0+94 Top of Conc.

encasement elev. 430.5 - Ground elev. 432.6

12" 12" - 20' left Sta. 1+22 Top of 12" Pipe

from Sump elev. 430.4 (This pipe is cut off)

Ground elev. = 432.7

12" 12" drain approx. Sta. 1+59 Top elev. 425.9

Ground elev. = 432.5

12" steel at Sta. 1+28 Top elev. 430.5

(dead pipe) Ground elev. 432.7

Note: All Ground elevations were taken  
along South edge of Oiled Strip.

2.

~~432.7~~

159.

B.M. used = ~~439.83~~ <sup>432.7</sup> app

4" steel septic Tank left Sta. 2+93  
Top el. 437.3 Ground 438.7  
~~430.2~~ <sup>431.6</sup>

30" steel 17' left of Sta. 1+50

El 426.02 Top. ~~437.7~~ <sup>432.6</sup>

at beginning of steel  
ventilator tube.

12" 16' left of Sta. 0+94

top of concrete encasement

437.64 Ground 439.7  
~~430.5~~ <sup>432.6</sup>

12" 20' left of Sta. 1+22

top of 12" pipe from

sump. ~~437.54~~ <sup>439.8</sup> This  
pipe is cut off <sup>430.4</sup> Ground <sup>432.7</sup>

12" another drain about

Sta. 1+60 (cut

dry out) Top ~~432.98~~ <sup>425.9</sup>  
Ground ~~439.6~~ <sup>432.5</sup>

12" 1+28 Top of 12" steel pipe

is 437.6 Ground ~~439.8~~ <sup>432.7</sup>  
~~430.5~~

dead pipe

170 x 58

ump  
plant

Res.



Elevations on Existing Pipes - Vicinity  
of El Monte Plant. City Datum  
Obtained March 3, 1942 by Hill of City Water Dept.

B.M. used = 432.7

4" steel septic Tank left Sta. 2+93  
Top elev. = 430.2 - Ground elev. = 431.6

30" - 30" steel 17' left Sta. 1+50  
Top elev. = 428.9 - Ground elev. 432.6

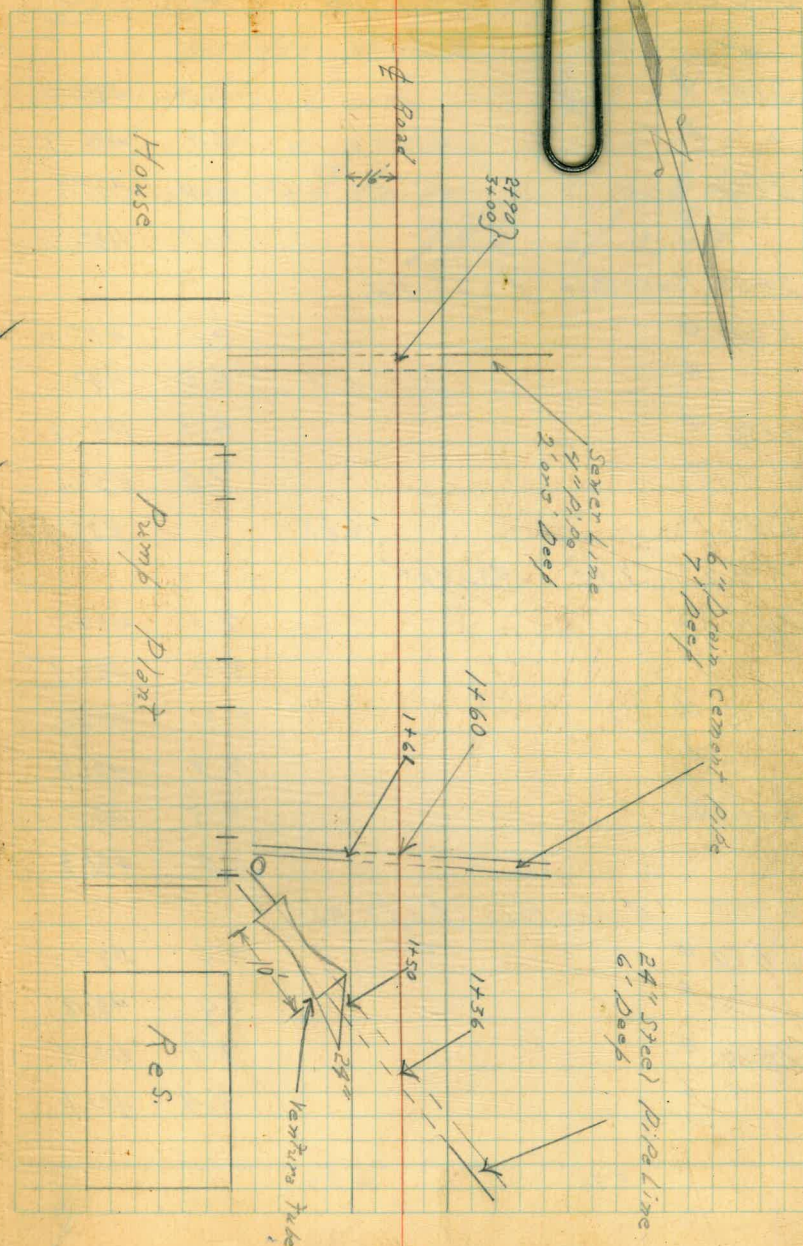
12" 12" - 16' left Sta. 0+94 Top of Conc.  
encasement elev. 430.5 - Ground elev. 432.6

12" 12" - 20' left Sta. 1+22 Top of 12" Pipe  
from Sump elev. 430.4 (This pipe is cut off)  
Ground elev. = 432.7

12" 12" drain approx. Sta. 1+59 Top elev. 425.9  
Ground elev. = 432.5

12" steel at Sta. 1+28 Top elev. 430.5  
(dead pipe) Ground elev. 432.7

Note: All Ground elevations were taken  
along South edge of Oiled Strip.





*[Faint, mostly illegible handwritten notes on a yellowed piece of paper, possibly bleed-through from the reverse side.]*

3  
Will get  
Right away RB  
2/28/42

Please have W.H. Simpson  
locate top of 24" C.O. Pipe to  
w. Dist Pumping Plant  
on south edge of ailed  
road and determine elevation  
by bench marks as concrete  
shown. Pump now at plant can show  
in the bench marks. Please expedite for  
Prof. [illegible]



Sta	BS	HI	FS	Rod	Elev
		439.12			
3+00	⊙			5.9	433.2
"	⊕			6.4	432.7
3+50	⊙			6.0	433.1
"	⊕			6.9	432.2
3+58	Power Pole Left Rd.				
4+00	⊙			6.1	433.0
"	⊕			6.8	432.3
4+50	⊙			6.3	432.8
"	⊕			7.0	432.1
T.P. #1			6.25		432.87
T.P. #2	3.92	436.79			
5+00	⊙			4.1	432.7
"	⊕			4.7	432.1
5+50	⊙			4.2	432.6
"	⊕			4.9	431.9
6+00	⊙			4.5	432.3
"	⊕			5.0	431.8
6+49	Power Pole Left Rd.				
6+50	⊙			4.6	432.2
"	⊕			5.0	431.8
7+00	⊙			4.7	432.1
"	⊕			5.4	431.4
		3.92	6.25		

3.

Note These levels differ  
1.0' with profile on layout  
sheets. Cuts shown on con-  
struction grades, book 627 P.66,  
corrected to match profile.  
M.H. 5/13/43



Sta	B.S.	Hi	I.S.	Red	Elev.
		436.79			
7+50	⊙			4.8	437.0
"	±			5.4	431.4
8+00	⊙			4.8	437.0
"	±			4.7	437.1
8+50	⊙			4.8	437.0
"	±			5.7	431.1
9+00	⊙			4.9	431.9
"	±			5.3	431.5
9+50		Paper Pole	Left Rd.		
9+50	⊙			5.1	431.7
"	±			5.9	430.9
10+00	⊙			5.2	431.6
"	±			6.1	430.7
10+50	⊙			5.2	431.6
"	±			6.0	430.8
68	⊙			6.2	430.6
10+20		culvert 24" Top	Left	6.2	430.6
			Right	6.9	429.9
11+00	⊙			5.3	431.5
"	±			6.0	430.8
11+50	⊙			5.2	431.6
"	±			5.9	430.9
12+00	⊙			5.0	431.8
"	±			5.6	431.2



Sta.	B.S.	Hi	I.S.	Red	Elev.
		436.79 ✓			
12+50 <sup>Ⓢ</sup>				4.8	437.0
" 2				5.6	431.4 ✓
12+50	Power Pole Left Rd.				
T.P. #2			4.58		432.21 ✓
✕ #3	8.17	440.38 ✓			
13+00 <sup>Ⓢ</sup>				8.2	437.2
" 2				8.9	431.5
13+50 <sup>Ⓢ</sup>				7.8	437.6
" 2				8.7	431.7
14+00 <sup>Ⓢ</sup>				7.4	433.0
" 2				8.1	437.3
14+50 <sup>Ⓢ</sup>				7.0	433.4
" 2				7.8	437.6
15+00 <sup>Ⓢ</sup>				6.6	433.8
" 2				7.1	433.3
15+50	Power Pole Left Rd.				
15+50 <sup>Ⓢ</sup>				6.1	434.3
" 2				6.5	433.9
16+00 <sup>Ⓢ</sup>				5.7	434.7
" 2				6.3	434.1
16+50 <sup>Ⓢ</sup>				5.2	435.2
" 2				6.1	434.3
	8.17		4.58		

P



Sta	B.S.	Hi	F.S.	Red	Elev.
		440.38			
17400 <sup>⊙</sup>				4.9	435.5
"				5.5	434.9
17750 <sup>⊙</sup>				4.3	436.1
"				4.9	435.5
18100 <sup>⊙</sup>				3.5	436.9
"				3.3	437.1
18410	Culvert 24"	Top	Left Right	4.3 5.4	436.1 435.0
BC 18431 <sup>⊙</sup>				3.1	437.3
"				2.3	438.1
18451	Power Pole	Left Rd.			
18450 <sup>⊙</sup>				2.9	437.5
"				3.2	437.4
19400 <sup>⊙</sup>				2.6	437.8
"				3.5	436.9
19450 <sup>⊙</sup>				2.3	438.1
"				3.4	437.0
20400 <sup>⊙</sup>				1.9	438.5
"				2.7	437.7
20418	Power Pole	Left Rd.			
T.P.#3			1.89		438.49
T.#4	6.07	444.56			
20450 <sup>⊙</sup>				5.8	438.8
"				6.1	438.5
	6.07		1.89		

Left  
Hi = 444.56

Hi: 444.56

438.9	437.5	436.5
$\frac{5.2}{32}$	$\frac{7.1}{16}$	$\frac{8.1}{14}$
439.8	439.2	438.0
$\frac{4.8}{32}$	$\frac{5.2}{19}$	$\frac{6.6}{16}$
		$\frac{7.9}{14}$
441.0	440.1	437.4
$\frac{3.6}{32}$	$\frac{4.5}{21}$	$\frac{7.2}{16}$
		$\frac{8.0}{14}$
442.3	441.7	437.7
$\frac{4.2}{32}$	$\frac{2.9}{32}$	$\frac{6.9}{16}$
		$\frac{7.9}{15}$
441.3	440.1	437.6
$\frac{3.9}{32}$	$\frac{4.5}{22}$	$\frac{7.0}{16}$
		$\frac{7.9}{15}$
441.0	439.4	438.4
$\frac{3.6}{32}$	$\frac{5.2}{25}$	$\frac{6.2}{16}$
		$\frac{7.1}{15}$
441.8	439.6	437.7
$\frac{4.8}{32}$	$\frac{5.0}{22}$	$\frac{6.9}{14}$

P



Sta.	B.S.	Hi	I.S.	Red	Elev
		444.56			
21+00 <sup>Ⓢ</sup>				5.4	439.2
" 2				5.6	439.0
21+50 <sup>Ⓢ</sup>				4.9	439.7
" 2				5.0	439.6
22+00 <sup>Ⓢ</sup>				4.1	440.5
" 2				4.5	440.1
EC 22+11 <sup>32</sup> <sup>Ⓢ</sup>				3.9	440.7
" 2				4.2	440.4
22+50 <sup>Ⓢ</sup>				2.9	441.7
" 2				3.2	441.4
22+94	Paper Pole - Left Rd.				
T.P.#4		1.20			443.36
T.#5	10.94	454.30			
County B.M.#6					450.96
We make it		8.59			445.71
		454.30			
23+00 <sup>Ⓢ</sup>				11.0	443.3
" 2				10.9	443.4
23+50 <sup>Ⓢ</sup>				8.9	445.4
" 2				8.9	445.4
24+00 <sup>Ⓢ</sup>				6.7	447.6
" 2				7.4	446.9
	10.94		1.20		444.56
					1.20
					443.36
					10.94
					445.71

444.56  
 1.20  
 443.36  
 10.94  
 445.71

HI	+	
444.0	444.56	438.1
2.6	140.9	6.5
32'	3.7	14'
443.4	441.1	438.8
1.2	3.5	5.8
32'	22'	14'
443.5	441.7	439.4
1.1	3.4	5.2
32'	22'	14'
443.9	441.4	439.7
0.7	3.2	4.9
32'	22'	14'
443.6	441.7	440.7
2.0	1.9	3.8
32'	22'	14'

Highway

HI = 454.30

445.5	441.3	444.3	442.2
8.8	1.30	1.00	1.20
32'	25'	22'	14'
446.4	442.7	446.4	447.0
7.9	1.6	3.2	7.3
22'	26'	22'	18'
			444.6
			8.7
			12'
			447.0
			2.3
			14'



Sta	B.S.	Hi.	F.S.	Rod	Elev.
		454.30 ✓			
T.P. #5			4.30		450.00 ✓
π #6	10.41	460.41 ✓			
24450 <sup>⊙</sup>			10.4		450.0
" #			10.6		449.8
25400 <sup>⊙</sup>			8.0		452.4
" #			7.9		452.5
25450 <sup>⊙</sup>			5.6		454.8
" #			6.2		454.2
26400 <sup>⊙</sup>			3.3		457.1
" #			3.0		457.4
26450 <sup>⊙</sup>			1.0		459.4
" #			1.6		458.8
T.P. #6			0.96		459.457
π #7	12.32	471.77 ✓			
26433	Power Pole Left Rd.				
27400 <sup>⊙</sup>			10.1		461.7
" #			10.8		461.0
27450 <sup>⊙</sup>			7.9		463.9
" #			8.6		463.2
28400 <sup>⊙</sup>			5.8		466.0
" #			6.5		465.3
28450 <sup>⊙</sup>			4.0		467.8
" #			4.6		467.2
					454.30
					5.26
	22.73		5.26		449.04
					22.73
					471.77

Left  
HI = 460.91

450.0	449.4
10.4	11.0
22'	15'
452.6	451.8
7.8	8.6
22'	15'
452.0	453.8
8.4	6.6
22'	20'
	453.9
	6.5
	15'
452.7	456.5
3.7	3.9
22'	19'
	456.4
	2.0
	15'
458.4	458.9
2.0	1.5
22'	15'
HI = 471.77	
	460.3
	11.5
	22'
	462.4
	9.4
	22'
	464.6
	2.2
	22'
	467.1
	4.7
	22'

Left  
HI = 471.77



Sta	BS	Hi.	I.S.	Rod	Elev.
		471.77✓			
29+00	Power Pole	Left Rd			
29+00	⊙			2.6	469.2
"	⊘			3.2	468.6
29+50	⊙			1.5	470.3
"	⊘			2.0	469.8
30+00	⊙			0.7	471.1
"	⊘			0.8	471.0
30+50	⊙			0.4	471.4
"	⊘			0.3	471.5
30+60	⊙			0.3	471.5
B.M. 30+61	⊙			0.3	471.5
"	⊘			0.3	471.5
31+00	⊙			0.4	471.4
"	⊘			0.3	471.5
31+50	⊙			0.7	471.1
"	⊘			0.1	471.7
32+00	⊙			1.2	470.6
"	⊘			0.3	471.5
T.P. #7			1.19		470.58
⊕ #8	1.79	472.37✓			
B.M. #5	Coony				476.24
We. Peff.			1.39		470.98
32+04	Power Pole	Left Rd.			
		1.79	1.19		471.77
					1.19
					470.58
					1.19
					472.37

Plotted to level C.V.G.

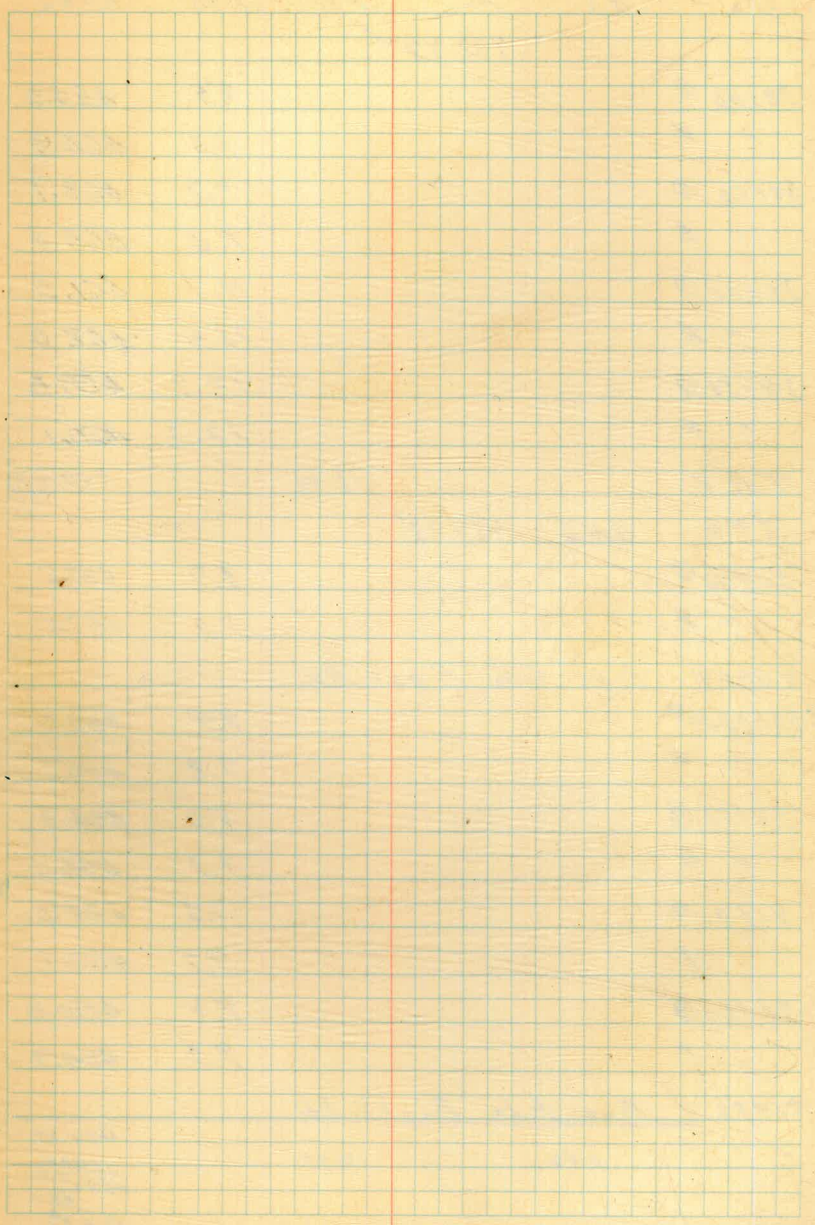
PROFILE NOTES FROM HERE ON A LINE  
NOT USED.

FOR CONTINUITY SEE  
PAGE 26 - Sta  
1+00

Highway



Sta.	D.S.	Hi.	F.S.	Red.	Elev.
		472.37	✓		
32+50	⊙			2.4	470.0
"	⊗			1.6	470.8
33+00	⊙			2.9	469.5
"	⊗			2.3	470.1
33+50	⊙			3.4	469.0
"	⊗			3.1	469.3
34+00	⊙			3.7	468.7
"	⊗			3.3	469.1
34+50	⊙			4.0	468.4
"	⊗			3.6	468.8
35+00	⊙			4.2	468.2
"	⊗			4.6	467.8
35+50	⊙			4.4	468.0
"	⊗			4.5	467.9
36+00	⊙			5.0	467.4
"	⊗			4.3	468.1
36+50	⊙			3.8	466.6
"	⊗			5.0	467.4
37+00	⊙			6.6	465.8
"	⊗			5.3	467.1
37+12	Power Pole Left Rd. 25'				
37+50	⊙			7.4	465.0
"	⊗			6.9	465.5





S <sub>2</sub>	B.S.	Hi.	F.S.	Rod	Elev
		472.37 ✓			
38+00	⊙			8.4	464.0
"	⊘			7.5	464.9
38+50	⊙			9.7	462.7
"	⊘			9.0	463.4
39+00	⊙			11.1	461.3
"	⊘			10.4	462.0
39+50	⊙			12.9	459.5
"	⊘			12.3	460.1
T.P. #8			12.90		459.47 ✓
π #9	0.46	459.93 ✓			
40+00	⊙			2.7	457.2
"	⊘			2.9	457.0
40+04	Power Pole Right Rd.				
EC. 40+35.22	⊙			4.4	455.5
"	⊘			3.8	456.1
40+50	⊙			5.0	454.9
"	⊘			4.3	455.6
41+00	⊙			7.3	452.6
"	⊘			7.2	452.7
41+50	⊙			9.4	450.5
"	⊘			9.2	450.7
41+52	Power Pole Right Rd.				
	0.46		12.90		474.27
					12.90
					459.47
					0.46
					459.93



Sta.	P.S.	Ht.	F.S.	Rod	Elev.
		459.93			
42700	⊙			11.3	448.6
"	⊗			11.1	448.8
42750	⊙			13.0	446.9
"	⊗			12.9	447.0
	Power Pole Right Rd.				
T.P. #9			12.96		446.97
#10	0.72	447.69			
43700	⊙			2.3	445.4
"	⊗			2.3	445.4
43705	Power Pole Right Rd.				
B.M. #4	county				
					449.79
We Pepp.			3.16		444.53
		447.69			
43750	⊙			3.9	443.8
"	⊗			3.8	443.9
44700	⊙			5.1	442.6
"	⊗			4.8	442.9
44750	⊙			6.0	441.7
"	⊗			5.7	442.0
45700	⊙			6.8	440.9
"	⊗			6.6	441.1
T.P. #10	Sta 45700		6.70		440.99
#11	1.08	442.07			
	1.80		19.66		
					459.93
					19.66
					440.27
					1.80
					442.07

449.79  
~~6.12~~  
 443.67







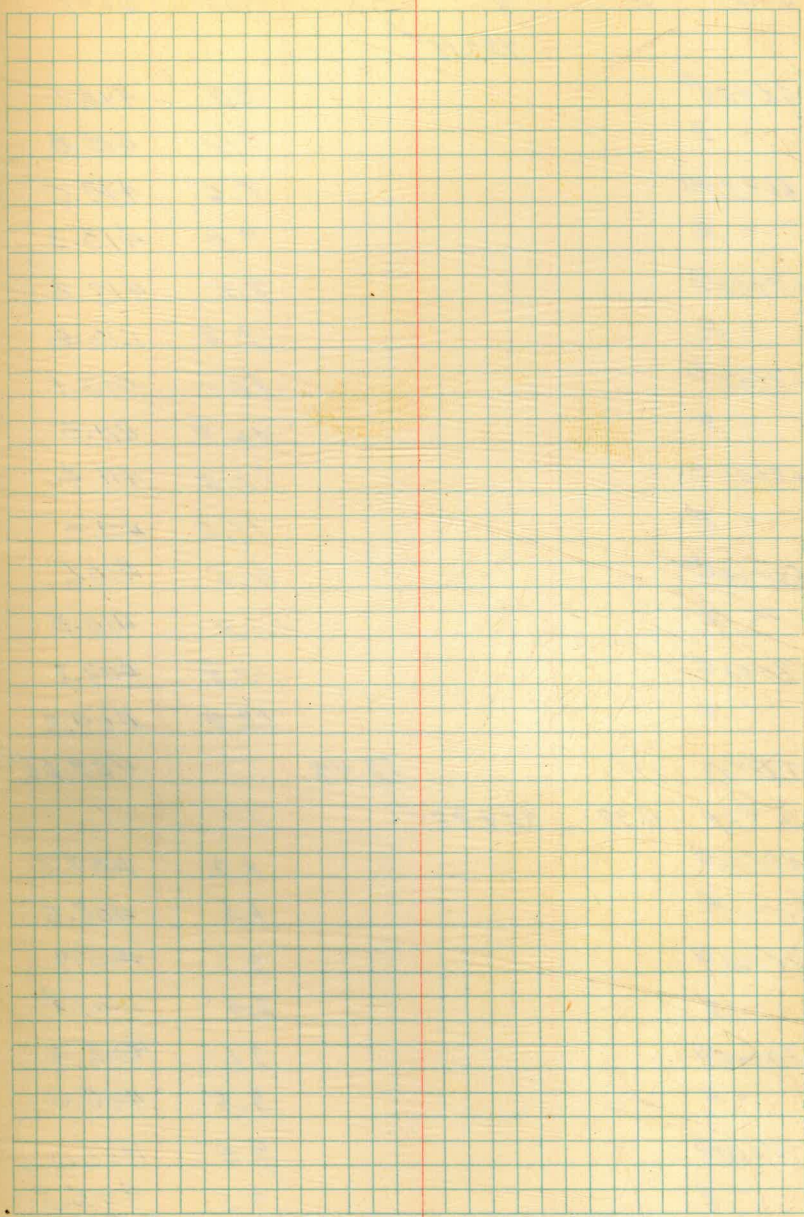
Sta.	B.S.	Hi.	F.S.	Red.	Elev.
		442.07 ✓			
50+50	⊙			7.3	434.8
"	⊘			7.4	434.7
51+00	⊙			8.7	433.4
"	⊘			8.5	433.6
51+50	⊙			10.1	432.0
"	⊘			10.0	432.1
52+00	⊙			11.5	430.6
"	⊘			11.4	430.7
52+50	⊙			12.9	429.2
"	⊘			13.0	429.1
T.P. #11			12.88		429.19 ✓
TP #12	1.67	430.86 ✓			
53+00	⊙			2.7	428.2
"	⊘			2.5	428.4
53+50	⊙			3.2	427.7
"	⊘			3.4	427.5
54+00	⊙			3.7	427.2
"	⊘			3.8	427.1
54+50	⊙			3.9	427.0
"	⊘			4.3	426.6
55+00	⊙			4.1	426.8
"	⊘			4.4	426.5
	1.67		12.88		442.07 12.88 429.19 1.67 430.86



Sta.	P.S.	Hi.	F.S.	Rod	Elev.
		430.86 ✓			
55+50 <sup>Ⓞ</sup>				4.4	426.5
" 2				4.7	426.2
56+00 <sup>Ⓞ</sup>				4.6	426.3
" 2				5.1	425.8
56+50 <sup>Ⓞ</sup>				5.0	425.9
" 2				5.5	425.4
57+00 <sup>Ⓞ</sup>				5.4	425.5
" 2				5.8	425.1
57+50 <sup>Ⓞ</sup>				5.9	425.0
" 2				6.3	424.6
58+00 <sup>Ⓞ</sup>				6.4	424.5
" 2				6.8	424.1
58+50 <sup>Ⓞ</sup>				6.8	424.1
" 2				7.2	423.7
59+00 <sup>Ⓞ</sup>				7.3	423.6
" 2				7.7	423.2
59+50 <sup>Ⓞ</sup>				7.7	423.2
" 2				8.2	422.7
60+00 <sup>Ⓞ</sup>				8.1	422.8
" 2				8.8	422.1
60+50 <sup>Ⓞ</sup>				8.5	422.4
" 2				9.1	421.8
61+00 <sup>Ⓞ</sup>				9.0	421.9
" 2				9.6	421.3



Sta.	B.S.	Hi.	I.S.	Rod	Elev.
		430.86 ✓			
T.P. #12			9.04		421.82 ✓
B. #13	0.33	422.15 ✓			
61750 <sup>⊙</sup>				1.0	421.2
" 2				1.6	420.6
62700 <sup>⊙</sup>				1.6	420.6
" 2				2.3	419.9
62750 <sup>⊙</sup>				2.3	419.9
" 2				3.0	419.2
63700 <sup>⊙</sup>				3.1	419.1
" 2				3.5	418.7
63750 <sup>⊙</sup>				3.8	418.4
" 2				4.3	417.9
64700 <sup>⊙</sup>				4.6	417.6
" 2				5.4	416.8
B.M. county					421.94
we Deff.			5.52		416.63
		422.15 ✓			
64750 <sup>⊙</sup>				5.5	416.7
" 2				6.4	415.8
65700 <sup>⊙</sup>				6.3	415.9
" 2				6.6	415.6
65750 <sup>⊙</sup>				7.2	415.0
" 2				7.5	414.7
	0.33		9.04		430.86
					9.04
					421.82 ✓
					33
					422.15



430.86  
9.04  
421.82 ✓  
33  
422.15

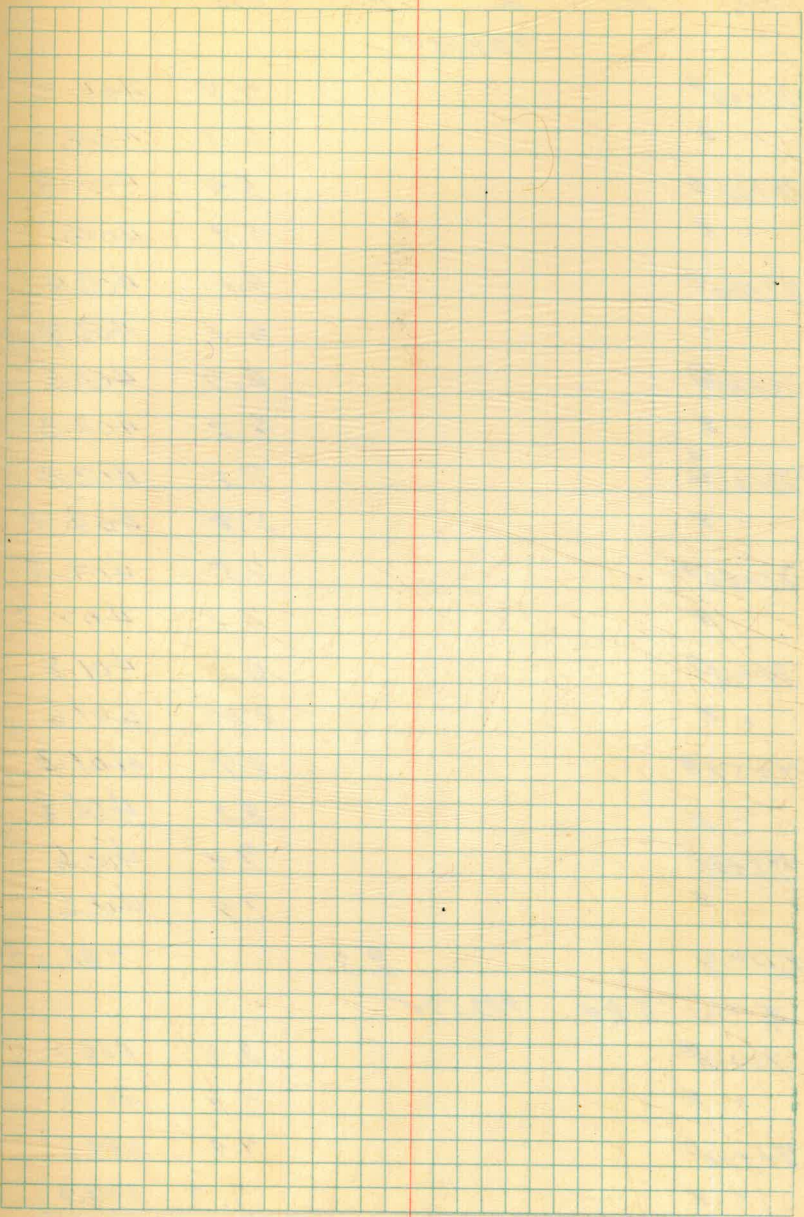


Sta.	B.S.	Hi.	F.S.	Rod	Elev.
		422.15 ✓			
66+00				8.0	414.2
" 2				8.4	413.8
66+50				8.6	413.6
" 2				9.0	413.2
67+00				9.4	412.8
" 2				9.8	412.4
67+50				10.1	412.1
" 2				10.7	411.5
68+00				10.8	411.4
" 2				11.2	411.0
68+50				11.6	410.6
" 2				11.9	410.3
69+00				12.5	409.7
" 2				12.9	409.3
T.P.#13			12.49		409.66 ✓
B.#14	0.32	409.98 ✓			
69+50				1.2	408.8
" 2				1.5	408.5
70+00				2.1	407.9
" 2				2.6	407.4
70+50				3.1	406.9
" 2				3.6	406.4
71+00				4.0	406.0
" 2				4.5	405.5

0.32

12.49

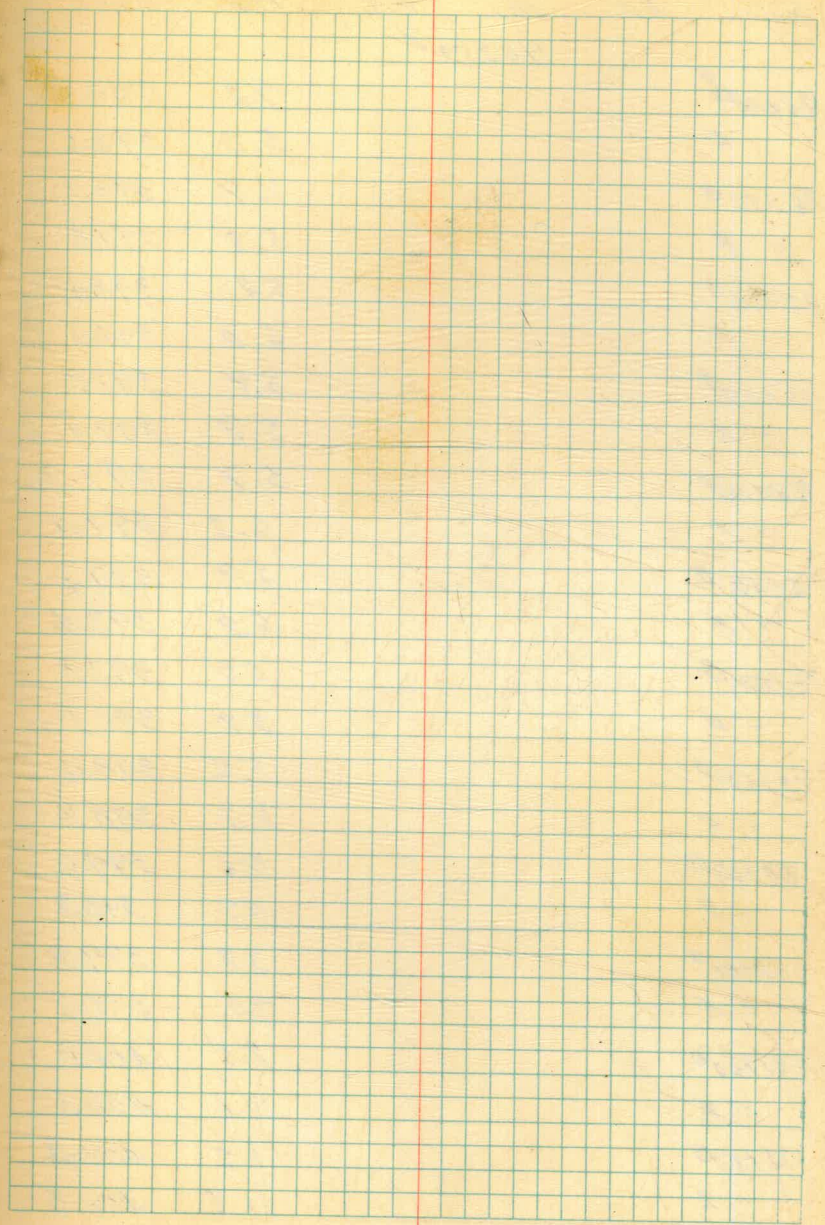
422.15  
 12.49  
 409.66  
 32  
 409.98





Sta	P.S	H.	F.S.	Red	Elev
		409.98 ✓			
71+50 <sup>Ⓟ</sup>				4.7	405.3
" 2				5.3	404.7
72+00 <sup>Ⓟ</sup>				5.4	404.8
" 2				5.9	404.1
72+50 <sup>Ⓟ</sup>				6.1	403.9
" 2				6.1	403.9
73+00 <sup>Ⓟ</sup>				6.7	403.3
" 2				6.2	403.8
B.C. 73+29.82 <sup>Ⓟ</sup>				7.2	402.8
" 2				5.8	404.2
73+50 <sup>Ⓟ</sup>				7.5	402.5
" 2				7.3	402.7
74+00 <sup>Ⓟ</sup>				8.2	401.8
" 2				8.7	401.6
74+50 <sup>Ⓟ</sup>				8.7	401.3
" 2				8.2	401.8
75+00 <sup>Ⓟ</sup>				9.4	400.6
" 2				9.4	400.6
T.P. #14			9.33		400.65 ✓
A #15	2.94	403.59 ✓			
75+50 <sup>Ⓟ</sup>				3.4	400.2
" 2				2.4	401.2
76+00 <sup>Ⓟ</sup>				4.0	399.6
" 2				4.3	399.3

409.98  
 9.33  
 400.65  
 2.94  
 403.59





Sz.	B.S.	Hi.	I.S.	Red.	Elev.
		403.59 ✓			
76+12 <sup>2</sup> ⊙				4.2	399.4
" ⊘				5.0	398.6
76+50 <sup>⊙</sup>				4.7	398.9
" ⊘				5.8	397.8
77+00 <sup>⊙</sup>				5.2	398.4
" ⊘				6.0	397.6
77+50 <sup>⊙</sup>				5.4	397.2
" ⊘				5.7	397.9
78+00 <sup>⊙</sup>				5.7	397.9
" ⊘				6.2	397.4
78+50 <sup>⊙</sup>				5.9	397.7
" ⊘				6.2	397.4
79+00 <sup>⊙</sup>				5.8	397.8
" ⊘				5.9	397.7
79+50 <sup>⊙</sup>				5.2	398.4
" ⊘				5.3	398.3
80+00 <sup>⊙</sup>				4.6	399.0
" ⊘				4.7	398.9
80+50 <sup>⊙</sup>				3.7	399.9
" ⊘				4.0	399.6
81+00 <sup>⊙</sup>				2.5	401.1
" ⊘				3.1	400.5
81+50 <sup>⊙</sup>				1.2	402.4
" ⊘				1.8	401.8



Sta.	B.S.	I.I.	F.S.	Red	Elev.
		403.59			
82+00 <sup>⊙</sup>				0.5	403.1
" 2				1.5	402.1
82+50 <sup>⊙</sup>				0.3	403.3
" 2				1.1	402.5
83+00 <sup>⊙</sup>				0.4	403.2
" 2				1.3	402.3
83+50 <sup>⊙</sup>				0.9	402.7
" 2				1.5	402.1
T.P. #15			0.89		402.70
T.P. #16	0.64	403.34			
84+00 <sup>⊙</sup>				1.4	401.9
" 2				2.1	401.2
84+50 <sup>⊙</sup>				2.3	401.0
" 2				3.5	399.8
85+00 <sup>⊙</sup>				3.3	400.0
" 2				3.6	399.7
85+50 <sup>⊙</sup>				4.1	399.2
" 2				4.4	398.9
86+00 <sup>⊙</sup>				4.6	398.7
" 2				5.0	398.3
86+50 <sup>⊙</sup>				5.0	398.3
" 2				6.3	397.0
87+00 <sup>⊙</sup>				5.3	398.0
" 2				6.4	396.9
	0.64		0.89		
					403.59
					402.70
					403.34



Sta	B.S.	Hi.	F.S.	Red.	Elev.
		403.34 ✓			
87+50 <sup>⊙</sup>				5.4	397.9
" 2				6.9	396.4
B.C. 87+91.70 <sup>⊙</sup>				5.5	397.8
" 2				6.6	396.7
88+00 <sup>⊙</sup>				5.5	397.8
" 2				6.7	396.6
88+50 <sup>⊙</sup>				5.7	397.6
" 2				7.2	396.1
89+00 <sup>⊙</sup>				6.0	397.3
" 2				7.5	395.8
89+50 <sup>⊙</sup>				6.3	397.0
" 2				7.8	395.5
90+00 <sup>⊙</sup>				6.5	396.8
" 2				9.7	393.6
90+50 <sup>⊙</sup>				6.6	396.7
" 2				9.9	393.4
91+00 <sup>⊙</sup>				6.5	396.8
" 2				7.9	395.4
E.C. 91+20 <sup>⊙</sup>				6.4	396.9
" 2				8.2	395.1
T.P. #16			6.48		396.86
A #17	5.45	402.31 ✓			
91+50 <sup>⊙</sup>				5.4	
" 2				7.3	
	5.45		6.48		
					403.34
					6.48
					396.86
					5.45
					402.31



Sta	B.S.	Hi.	I.S.	Rod	Elev.
		402.31	✓		
92+00	⊙			5.2	397.1
"	⊘			7.2	395.1
92+50	⊙			5.1	397.2
"	⊘			6.1	396.2
93+00	⊙			5.0	397.3
"	⊘			6.2	396.1
93+50	⊙			5.0	397.3
"	⊘			5.7	396.6
94+00	⊙			5.1	397.2
"	⊘			6.2	396.1
94+50	⊙			5.0	397.3
"	⊘			6.8	395.5
95+00	⊙			5.0	397.3
"	⊘			5.2	397.1
95+50	⊙			5.1	397.2
"	⊘			6.1	396.2
96+00	⊙			5.0	397.3
"	⊘			6.3	396.0
96+50	⊙			5.0	397.3
"	⊘			5.8	396.5
97+00	⊙			5.0	397.3
"	⊘			5.7	396.6
97+50	⊙			4.9	397.4
"	⊘			5.4	396.9



Sta	B.S.	Hi.	F.S.	Rad	Elev.
98+00 <sup>Ⓞ</sup>		402.31 ✓		4.8	397.5
" 2				5.2	397.1
98+50 <sup>Ⓞ</sup>				4.7	397.6
" 2				5.1	397.2
99+00 <sup>Ⓞ</sup>				4.7	397.6
" 2				5.0	397.3
99+50 <sup>Ⓞ</sup>				4.6	397.7
" 2				4.9	397.4
100+00 <sup>Ⓞ</sup>				4.2	398.1
" 2				5.1	397.2
T.P. # 17			4.20		398.11
T. # 18	8.21	406.32 ✓			
100+50 <sup>Ⓞ</sup>				7.5	398.8
" 2				7.7	398.6
101+00 <sup>Ⓞ</sup>				6.6	399.7
" 2				6.9	399.4
101+50 <sup>Ⓞ</sup>				6.2	400.1
" 2				6.4	399.9
102+00 <sup>Ⓞ</sup>				5.9	400.4
" 2				6.1	400.2
102+50 <sup>Ⓞ</sup>				5.7	400.6
" 2				5.5	400.8
103+00 <sup>Ⓞ</sup>				5.4	400.9
" 2				5.3	401.0

8.21

4.20

402.31  
4.20  
398.11  
8.21  
406.32

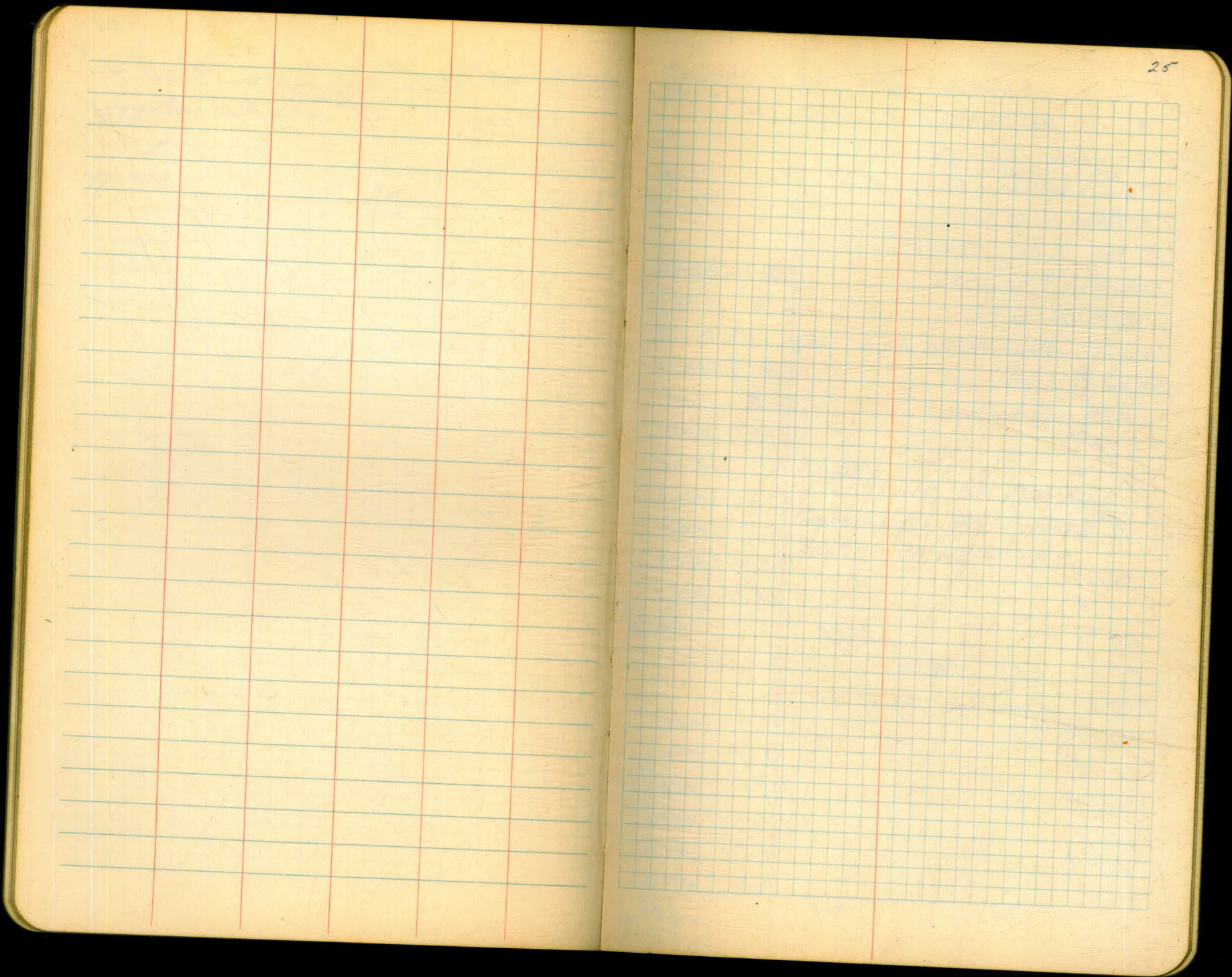


Sta	B.S.	Hi.	I.S.	Red.	Elev.
		406.32 ✓			
103.719 <sup>25</sup>				5.34	400.98
" E				5.0	401.3
T.P. #18			5.04		401.28 ✓
			5.04		406.32
					5.04
					401.28

24

T.P. #18 South West Cor. of Main St. &  
 Sycamore St. 1 1/2" iron Pipe in Curb.







A Line

A Line From  $30+61.22$  To A  $81+00.42$

⊙ = 10' offset of Pipe Line

⊔ = center Pipe Line

Sta	B.S.	Hi	F.S.	Rod	Elev.
T.P.#7					470.58
π #1	3.86	474.44			
1+00 ⊙			3.2		471.2
" ⊔			2.8		471.6
1+40	Power Pole Left Rd.				
2+00 ⊙			3.7		470.7
" ⊔			3.5		470.9
2+45 ⊙			4.4		470.0
" ⊔			4.4		470.0
3+00 ⊙			7.6		466.8
" ⊔			7.5		466.9
4+00 ⊙			12.4		462.0
" ⊔			12.4		462.0
T.P.#1		12.38			462.06
π #2	0.67	462.73			
4+78	Power Pole Left Rd.				
5+00 ⊙			2.4		460.3
" ⊔			2.5		460.2
6+00 ⊙			4.1		458.6
" ⊔			4.1		458.6
7+00 ⊙			5.7		457.0
" ⊔			5.9		456.8
	4.53		12.38		470.58
					4.53
					475.11
					12.38
					462.73

Revised Stationing

31+61 ⊙

" ⊔

32+01 ⊔

32+61 ⊙

" ⊔

33+06 ⊙

" ⊔

NOTE:-  
PLOTTING OF PROFILE  
CONTINUED FROM PAGE 9,  
STATION  $30+60.20$  - B.C.

Should be same  
3060.90 correct  
A.R.

π Messersmith 26

φ Melhorn

Nov. 25, 1941

⊙ = 10' offset of Pipe Line  
⊔ = center Pipe Line  
1+00 To 81+00.42

Zero of "A" Line =

30+61.22 of Line Hol. pp 1-9

All stations on A line to  
have  $3061.20$  added for  
revised stationing.



## A Line

27

Sta	P.S.	Hi.	I.S.	Rod	Elev.
		462.73	✓		
7+25	Power Pole				
8+00 <sup>⊙</sup>				7.4	455.3
" 2				7.6	455.1
9+00 <sup>⊙</sup>				7.7	455.0
" 2				7.8	454.9
9+55	Bridge			8.0	454.7
9+71	"			8.0	454.7
9+90	Power Pole				
10+00 <sup>⊙</sup>				8.0	454.7
" 2				8.2	454.5
11+00 <sup>⊙</sup>				7.9	454.8
" 2				8.1	454.6
12+00 <sup>⊙</sup>				7.9	454.8
" 2				7.8	454.9
T.P. #2			7.97		454.76
T.P. #3	8.06	462.82	✓		
13+00 <sup>⊙</sup>				6.6	456.2
" 2				7.0	455.8
14+00 <sup>⊙</sup>				5.1	457.7
" 2				4.7	458.1
BC-14+15 <sup>⊙</sup>				4.9	457.9
" 2				4.5	458.3
14+50 <sup>⊙</sup>				4.4	458.4
" 2				3.9	458.9
	8.06		7.97		462.73 7.97 454.76 8.06 462.82



## A. Line

Sta.	B.S.	Hi.	I.S.	Red.	Elev.
		462.82 ✓			
15700 <sup>⊙</sup>				4.0	458.8
" 2				3.7	459.1
B.M. #8	country				464.08
We Peff.		3.92			458.90
15750 <sup>⊙</sup>				5.5	457.3
" 2				4.6	458.2
16400 <sup>⊙</sup>				6.7	456.1
" 2				6.1	456.7
EG 16707 <sup>25</sup>				6.9	455.9
" 2				6.4	456.4
17700 <sup>⊙</sup>				8.5	454.3
" 2				8.5	454.3
18700 <sup>⊙</sup>				10.4	452.4
" 2				10.3	452.5
19700 <sup>⊙</sup>				12.0	450.8
" 2				12.1	450.7
T.P. #3			11.99		450.83 ✓
T. #4	2.10	452.93 ✓			
20700 <sup>⊙</sup>				3.8	449.1
" 2				3.7	449.2
21700 <sup>⊙</sup>				5.3	447.6
" 2				5.2	447.7
22700 <sup>⊙</sup>				6.5	446.4
" 2				6.4	446.5
	2.10		11.99		447.82
					447.99
					450.83
					2.10
					452.93



A. Lino

29

Sta	B.S.	Hi	F.S.	Red	ELok
		452.93			
23+00 <sup>Ⓢ</sup>				7.5	445.4
" 2				7.5	445.4
24+00 <sup>Ⓢ</sup>				8.4	444.5
" 2				8.2	444.7
25+00 <sup>Ⓢ</sup>				8.5	444.4
" 2				8.4	444.5
26+00 <sup>Ⓢ</sup>				9.1	443.8
" 2				9.2	443.7
T.P.#4			8.43		444.50
π #5	0.83	445.33			
27+00 <sup>Ⓢ</sup>				3.7	441.6
" 2				4.0	441.3
28+00 <sup>Ⓢ</sup>				8.3	437.0
" 2				8.4	436.9
29+00 <sup>Ⓢ</sup>				11.9	433.4
" 2				11.8	433.5
T.P.#5			11.94		433.39
π #6	0.93	434.32			
30+00 <sup>Ⓢ</sup>				2.4	431.9
" 2				2.3	432.0
31+00 <sup>Ⓢ</sup>				4.7	429.6
" 2				4.9	429.4
32+00 <sup>Ⓢ</sup>				8.2	426.1
" 2				8.5	425.8
	1.76		20.37		
					452.93
					20.37
					433.56
					1.76
					434.32

452.93  
20.37  
433.56  
1.76  
434.32

P



## A. Line

Sta.	B.S.	H.I.	F.S.	Rod	Elev.
		434.32			
33+00 <sup>Ⓢ</sup>				11.5	422.8
" 2				11.6	422.7
T.P. #6			11.50		422.82 ✓
π #7	0.75	423.57 ✓			
34+00 <sup>Ⓢ</sup>				4.3	419.3
" 2				4.3	419.3
35+00 <sup>Ⓢ</sup>				9.2	414.4
" 2				9.6	414.0
36+00 <sup>Ⓢ</sup>				12.5	411.1
" 2				12.8	410.8
T.P. #7			12.47		411.10 ✓
π #8	1.01	412.11 ✓			
37+00 <sup>Ⓢ</sup>				2.7	409.4
" 2				3.1	409.0
38+00 <sup>Ⓢ</sup>				4.2	407.9
" 2				4.4	407.7
39+00 <sup>Ⓢ</sup>				5.3	406.8
" 2				5.8	406.3
40+00 <sup>Ⓢ</sup>				7.0	405.1
" 2				7.2	404.9
41+00 <sup>Ⓢ</sup>				7.9	404.2
" 2				8.1	404.0
42+00 <sup>Ⓢ</sup>				8.5	403.6
" 2				8.7	403.4
	1.76		23.97		
					434.32 23.97 440.35 1.76 442.11



## A. Line

31

Sta.	B.S.	Hi.	F.S.	Red.	Elev.
		412.11			
43+00 <sup>Ⓢ</sup>				8.6	403.5
" 2				8.7	403.4
44+00 <sup>Ⓢ</sup>				10.0	402.1
" 2				10.1	401.0
45+00 <sup>Ⓢ</sup>				10.9	401.2
" 2				10.8	401.3
T.P.#8			10.87		401.24
46+00 <sup>Ⓢ</sup>				11.8	400.9
" 2				12.1	400.6
46+60	Power Pole Left Rd.				
47+00 <sup>Ⓢ</sup>				11.8	400.9
" 2				12.0	400.7
48+00 <sup>Ⓢ</sup>				10.0	402.7
" 2				10.4	402.3
49+00 <sup>Ⓢ</sup>				3.6	409.1
" 2				3.9	408.8
T.P.#9			0.27		412.44
49+60	Power Pole Left Rd.				
50+00 <sup>Ⓢ</sup>				10.9	413.5
" 2				11.1	413.3
51+04	Power Pole Left Rd.				

23.44

11.14

$$\begin{array}{r}
 412.11 \\
 11.14 \\
 \hline
 400.97 \\
 23.44 \\
 \hline
 424.41
 \end{array}$$



A. Line					
Sta.	B.S.	Hi.	F.S.	Rad	E Lev.
		424.41	✓		
51+00 <sup>Ⓢ</sup>				7.6	416.8
" 2				7.7	416.7
52+00 <sup>Ⓢ</sup>				5.4	419.0
" 2				5.2	419.2
52+55	Power Pole Left Rd.				
B.M. #4	county				429.33
We Deff.		0.31			424.10
		424.41			
53+00 <sup>Ⓢ</sup>				2.4	422.0
" 2				2.7	421.7
54+00 <sup>Ⓢ</sup>				0.4	424.0
" 2				0.8	423.6
T.P. #10		0.40			424.01 ✓
T. #11	7.72	431.73	✓		
54+70	Power Pole Left Rd.				
55+00 <sup>Ⓢ</sup>				6.2	425.5
" 2				6.6	425.1
56+00 <sup>Ⓢ</sup>				5.3	426.4
" 2				5.6	426.1
56+70	Power Pole Left Rd.				
57+00 <sup>Ⓢ</sup>				4.8	426.9
" 2				4.8	426.9
58+00 <sup>Ⓢ</sup>				4.2	427.5
" 2				4.0	427.7
	7.72		0.40		
					424.41
					0.40
					424.01
					7.72
					431.73

431.73



A. Line

Sta	B.S.	Hi	F.S.	Red	Elev
		431.73 ✓			
58+25	Power Pole Left Rd.				
59+00 <sup>⊙</sup>				6.3	425.4
" 2				6.7	425.0
60+00 <sup>⊙</sup>				8.1	423.6
" 2				8.5	423.2
60+50	Power Pole Left Rd.				
61+00 <sup>⊙</sup>				10.3	421.4
" 2				10.8	420.9
61+22	Power Pole Left Rd.				
T.P. #11			10.30		421.43 ✓
T.P. #12	0.62	422.05 ✓			
62+00 <sup>⊙</sup>				4.2	417.9
" 2				4.6	417.5
63+00 <sup>⊙</sup>				6.9	415.2
" 2				7.4	414.7
63+85	Power Pole Left Rd.				
64+00 <sup>⊙</sup>				8.3	413.8
" 2				8.8	413.3
65+00 <sup>⊙</sup>				9.5	412.6
" 2				9.8	412.3
66+00 <sup>⊙</sup>				9.6	412.5
" 2				9.8	412.3
66+35	Power Pole Left Rd.				
	0.62		10.30		

431.73  
10.30  
421.43  
0.62  
422.05

P

33



## A. Line

34

Sta.	B.S.	Hi	F.S.	Red.	Elev
		422.05			
67+00 <sup>ⓐ</sup>				8.4	413.7
" <del>2</del>				8.5	413.6
68+00 <sup>ⓐ</sup>				8.2	413.9
" <del>2</del>				8.1	414.0
69+00 <sup>ⓐ</sup>				9.4	412.7
" <del>2</del>				9.6	412.5
T.P. #12			9.45		412.60
π #13	0.60	413.20			
68+98	Power Pole Left Rd				
70+07 <sup>ⓐ</sup>				1.8	411.4
" <del>2</del>				5.4	407.8
70+70	Tel. Pole Left Line				
71+00 <sup>ⓐ</sup>				3.9	409.3
(X) " <del>2</del>				7.4	405.8
72+00 <sup>ⓐ</sup>				7.8	405.4
" <del>2</del>				9.4	403.8
72+25	Tel. Pole Left Line				
73+00 <sup>ⓐ</sup>				8.9	404.3
" <del>2</del>				9.1	404.1
74+00 <sup>ⓐ</sup>				10.4	402.8
" <del>2</del>				10.5	402.7
73+95	Tel. Pole Left Line				
T.P. #13			10.30		402.90
π #14	4.38	407.28			
	4.98		19.75		
					422.05
					19.75
					402.30
					4.98
					407.28

422.05  
19.75  
402.30  
4.98  
407.28

P



A. Line

Sta.	B.S.	Hi.	F.S.	Red	CITY DATUM Elev
		407.28			
75+00 <sup>Ⓢ</sup>				5.3	402.0
" 2				5.2	402.1
75+50	Tel. Pole Left Line				
76+00 <sup>Ⓢ</sup>				4.9	402.4
" 2				5.6	401.7
77+00 <sup>Ⓢ</sup>				4.2	403.1
" 2				4.9	402.4
77+16	Tel Pole Left Line				
B.C. 77+40 <sup>Ⓢ</sup>				3.9	403.4
" 2				5.7	401.6
E.C. 77+99 <sup>Ⓢ</sup>				4.6	402.7
" 2				6.6	400.7
78+65	Stub Pole				
B.C. 78+80 <sup>Ⓢ</sup>				5.5	401.8
109+41.03 <sup>Ⓢ</sup>				6.4	400.9
78+90	Tel. Pole Left Line				
79+00 <sup>Ⓢ</sup>				5.8	401.5
109+61 <sup>Ⓢ</sup>				6.6	400.7
79+50 <sup>Ⓢ</sup>				4.9	402.4
110+11 <sup>Ⓢ</sup>				6.0	401.3
80+00 <sup>Ⓢ</sup>				4.6	402.7
110+61 <sup>Ⓢ</sup>				5.0	402.3
E.C. 80+34 <sup>Ⓢ</sup>				4.1	403.2
110+95.54 <sup>Ⓢ</sup>				4.7	402.6

P/

U.S. G.S.  
DATUM  
ELEV

35

SEE

SEE NOTE PAGE # 36  
EE.

406.0.

405.8.

406.4.

407.4.

407.7.



A. Line

Sta	B.S.	Hi.	F.S.	Rod	CITY DATUM ELEV
		407.28 ✓			
T.P. #14			2.25		405.03 ✓
TA #15	0.45	405.48 ✓			
81+00 <sup>22</sup> Back				0.4	405.1
81+00 <sup>22</sup> Head				0.7	404.8
111+61.38 <sup>22</sup>				1.2	404.3
111+76					
81+15					Tel. Pole Left Rd.
111+82					
81+21					Power Pole Left Rd.
82+00 <sup>22</sup>				4.1	401.4
112+61 <sup>22</sup>				4.8	400.7
113+01					
82+40					Power Pole Left Rd.
83+00 <sup>22</sup>				7.0	398.5
113+61 <sup>22</sup>				7.4	398.1 <u>e</u>
114+21					
83+60					Power Pole Left Rd.
84+00 <sup>22</sup>				8.3	397.2
114+61 <sup>22</sup>				8.8	396.7
85+00 <sup>22</sup>				8.8	396.7
115+61 <sup>22</sup>				9.1	396.4
115+79					
85+18					Power Pole Left Rd.
86+00 <sup>22</sup>				9.6	395.9
116+61 <sup>22</sup>				10.0	395.5
T.P. #15			9.63		395.85 ✓
TA #16	2.34	398.19 ✓			
117+51					
86+98					Power Pole Left Rd.
	2.79		11.88		
					407.28
					11.88
					395.40
					2.79
					398.19

 U.S.G.S. DATUM  
 +6.12  
 -1.00  
 ELEV. +5.12

36

① 8' offset Pipe Line  
 ② center Pipe Line  
 A.81+00.48 To A.92+00

409.4

NOTE: ALL ELEVATIONS MARKED  
 "GREEN" SHOWS 1.0' SUBTRACTED  
 FROM CITY DATUM ELEVATION,  
 (ERROR OF 1.0' FOUND IN BENCH MARK).

405.8

ALSO ADD 6.12' TO CONVERT  
 CITY DATUM TO U.S.G.S. DATUM.  
 ADD 3060.9 TO STATIONING.

403.2 e

(CONTINUED IN F.B. #688-PG.51) EE  
 EE 11-2-45

401.8

401.5

400.6

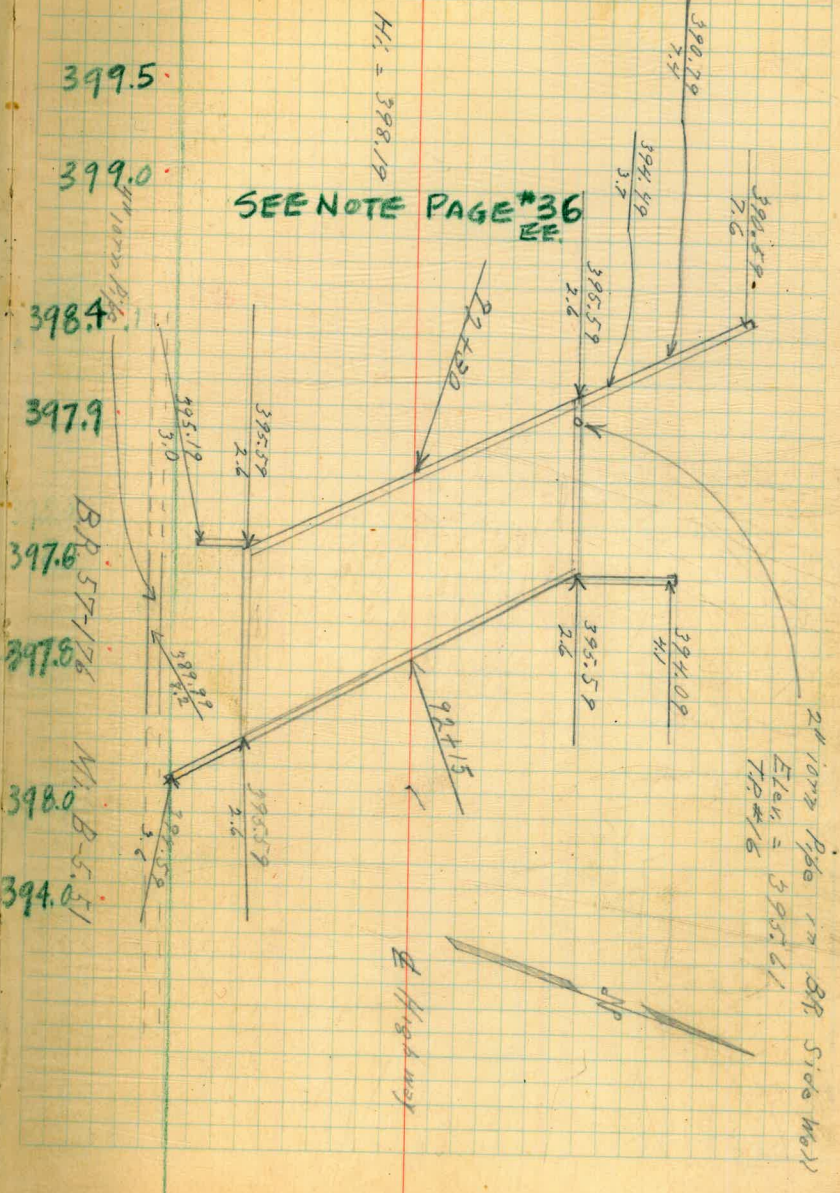


A Line

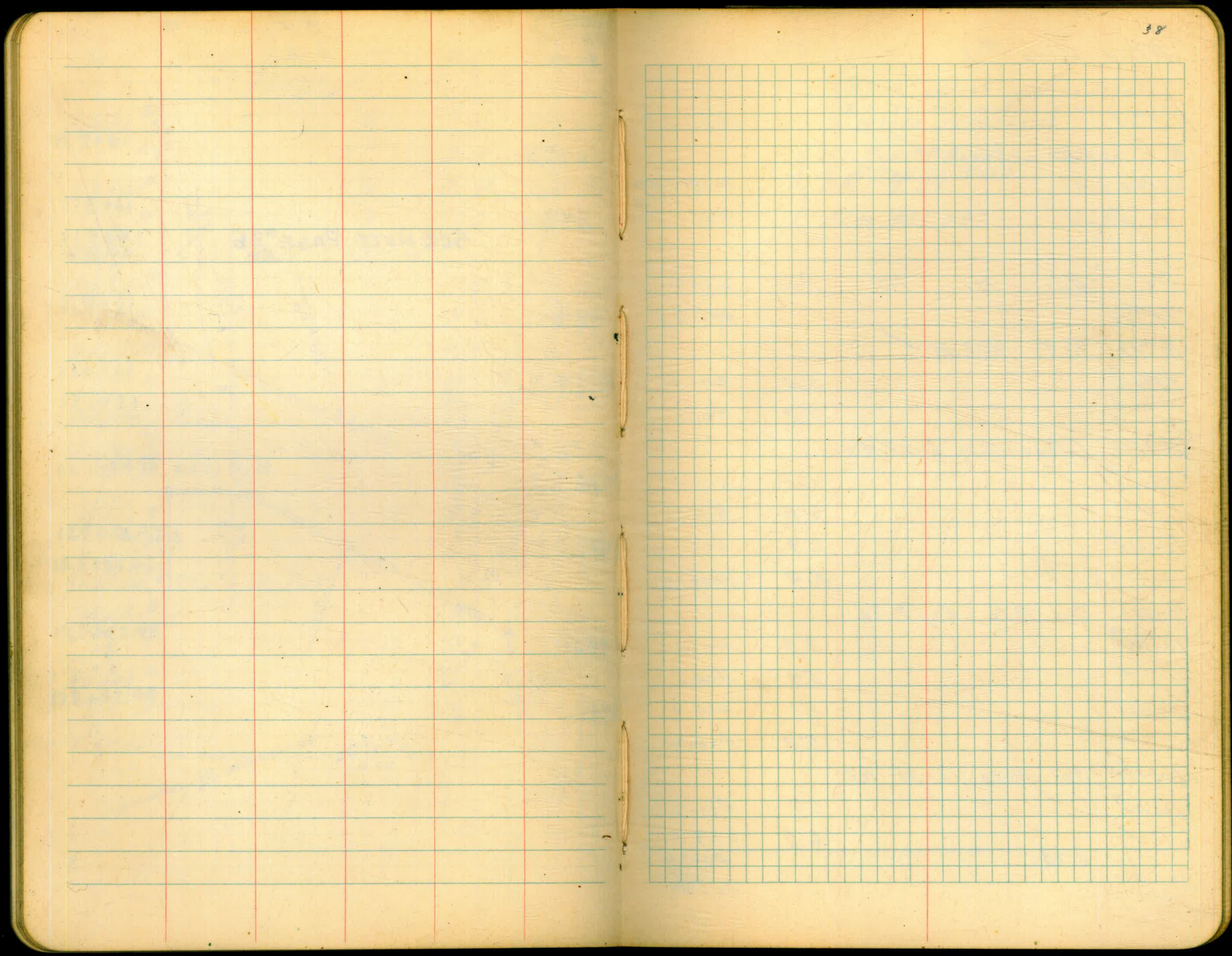
S7a	B.S.	Hi.	F.S.	Rod	CITY DATUM Elev.
87+00		398.19		3.0	395.2
117+61				3.8	394.4
88+00				3.8	394.4
118+61				4.3	393.9
119+41				4.4	393.8
88+80	Power Pole		Left Rd.	4.9	393.3
89+00				4.9	393.3
119+61				5.4	392.8
90+00				5.3	392.9
120+61				5.7	392.5
121+31	Power Pole		Left Rd.	5.2	393.0
90+88				5.5	392.7
121+49				4.4	393.8
91+00				5.3	392.9
125+42.48				3.3	394.9
125+52.48	Stub Pole			9.3	388.9
91+50					395.61
125+92.48					398.19
92+00					2.58
126+42.48					395.61
TP #16					

USGS. DATUM ELEV.

Messersmith  
 & Melhorn  
 Nov. 26, 1941









## Main Line #1

T.P.#18 401.28  
 π 5.21 406.49 ✓  
 U.S.C.G. B.M. 405.987  
 We Deff. 5.29 400.70

Sta	B.S.	Hi	F.S.	Rod	Elev.
T.P.#18					401.28
π#19	4.74	406.02			✓
103+50				5.0	401.0
" 2				4.9	401.1
103+50	Power Pole Left Rd.				
104+00				5.0	401.0
" 2				4.8	401.2
104+50				4.9	401.1
" 2				5.2	400.8
104+53	Tel. Pole Left Rd.				
105+00				4.9	401.1
" 2				5.4	400.6
105+50				5.1	400.9
" 2				5.8	400.2
105+85	Tel. Pole Left Rd.				
106+00				5.8	400.2
" 2				6.2	399.8
				4.74	401.28
					4.74
					406.02

⊙ = 16' offset of Pipe Line  
 ⊚ = center of Pipe Line  
 103+50 To 125+31.4

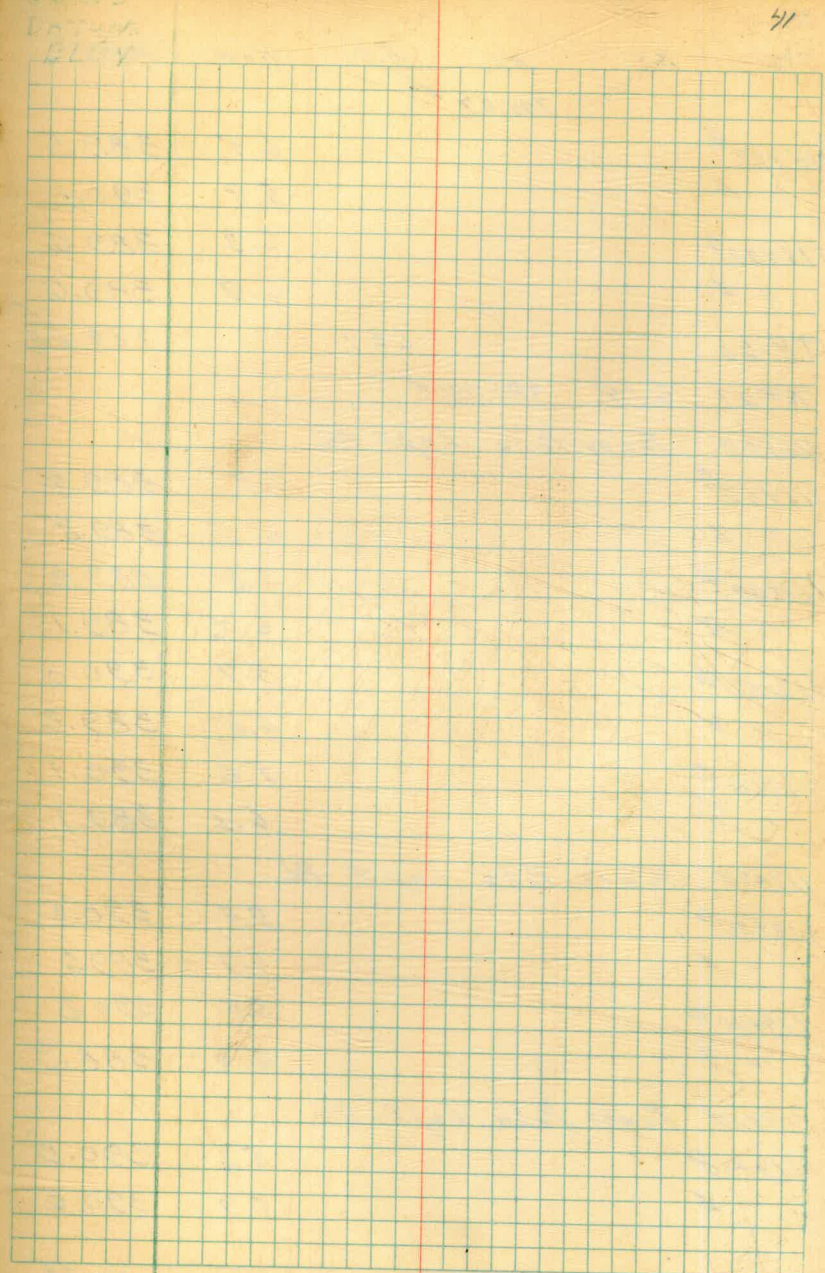
U.S. Coast & Geodetic Survey  
 N.F. Cor of Bank.  
 B.M. T. 61  
 Elev. 405.987



Sta.	B.S.	Hi.	I.S.	Rod	Elev.
		406.02 ✓			
106+50 <sup>Ⓢ</sup>				6.1	399.9
" 2				6.4	399.6
107+00 <sup>Ⓢ</sup>				7.5	398.5
" 2				7.7	398.3
107+10	Power Pole Left Rd.				
107+50 <sup>Ⓢ</sup>				10.2	395.8
" 2				11.4	394.6
108+00 <sup>Ⓢ</sup>				11.8	394.2
" 2				12.5	393.5 ✓
T.P.#19			11.76		394.26 ✓
A#20	1.61	395.87 ✓			
108+50 <sup>Ⓢ</sup>				2.9	393.0
" 2				3.3	392.6
108+60	Tel. Pole Left Rd.				
109+00 <sup>Ⓢ</sup>				3.5	392.4
" 2				3.8	392.1
109+50 <sup>Ⓢ</sup>				3.9	392.0
" 2				4.2	391.7
110+00 <sup>Ⓢ</sup>				4.1	391.8
" 2				4.8	391.1
110+50 <sup>Ⓢ</sup>				4.2	391.7
" 2				4.9	391.0
110+62	Tel. Pole Left Rd.				
	1.61		11.76		406.02
					1.61
					407.63
					11.76
					395.87



Sta	B.S.	H <sub>i</sub>	F.S.	Rod	Elev.
		395.87	✓		
111+00	⊙			4.6	391.3
"	⊘			5.5	390.4
111+50	⊙			5.3	390.6
"	⊘			5.8	390.1
111+60	Tel. Pole Left Rd.				
112+00	⊙			5.7	390.2
"	⊘			6.1	389.8
112+50	⊙			5.7	390.2
"	⊘			6.1	389.8
112+80	Tel Pole Left Rd.				
113+00	⊙			5.9	390.0
"	⊘			6.2	389.7
113+50	⊙			6.0	389.9
"	⊘			6.4	389.5
114+00	⊙			5.8	390.1
"	⊘			6.0	389.9
114+50	⊙			5.8	390.1
"	⊘			6.2	389.7
114+53	Tel Pole Left Rd.				
115+00	⊙			5.8	390.1
"	⊘			6.5	389.4
115+50	⊙			5.9	390.0
"	⊘			5.9	390.0





Sta	B.S.	Hi	F.S.	Red	Elev.
		395.87			
115+87				6.4	389.5
"				5.8	390.1
116+00				6.3	389.6
"				6.3	389.6
T.P. 20.			6.27		389.60
116+21	6.14	395.74			
116+20	Power Pole Left Rd.				
116+50				5.9	389.8
"				6.5	389.2
117+00				5.8	389.9
"				6.6	389.1
117+50				5.7	390.0
"				6.5	389.2
118+00				5.6	390.1
"				6.6	389.1
117+98	Power Pole Left Rd.				
118+50				5.4	390.3
"				6.3	389.4
119+00				5.5	390.2
"				6.8	388.9
119+50	Power Pole Left Rd.				
119+50				5.2	390.5
"				5.7	390.0
		6.14	6.27		
				395.87	
				6.14	
				402.01	
				6.27	
				395.74	



Sta.	B.S.	Hi.	F.S.	Rod	Elev
		395.74			
120100 <sup>Ⓢ</sup>				5.2	390.5
" 2				5.8	389.9
120750 <sup>Ⓢ</sup>				4.8	390.9
" 2				5.7	390.0
121400 <sup>Ⓢ</sup>				4.8	390.9
" 2				4.8	390.9
121750 <sup>Ⓢ</sup>				4.5	391.2
" 2				4.5	391.2
121448	Power Pole				
	Left Rd				
122700 <sup>Ⓢ</sup>				4.4	391.3
" 2				4.6	391.1
122750 <sup>Ⓢ</sup>				4.2	391.5
" 2				4.2	391.5
123700 <sup>Ⓢ</sup>				4.1	391.6
" 2				4.3	391.4
123750 <sup>Ⓢ</sup>				3.9	391.8
" 2				4.2	391.5
124407	Power Pole				
	Left Rd				
124700 <sup>Ⓢ</sup>				3.4	392.3
" 2				3.7	392.0
124750 <sup>Ⓢ</sup>				3.0	392.7
" 2				3.4	392.3
124780	Strud Pole				
	Left Rd				



Sta.	B.S.	Hi.	F.S.	Red	Elev.
		395.74 ✓			
125+00 <sup>Ⓢ</sup>				2.7	393.0
" 2				3.1	392.6
125+31 <sup>Ⓢ</sup>				3.0	392.7
" 2				3.0	392.7
T.P.#21 = T.P.#16 Aline			0.19		395.55



El Monte P.L.

± Elevations :-

113+04	}	Subtract 1.0 from book
127+42 <sup>48</sup>		F.B. 628 p. 36 - 37
239+47 <sup>50</sup>	}	Add 3060.9 to stationing
		F.B. 628 p. 45 - 67
		Subtract 1.0 from book

Alignment :-

113+04	}	Route "A" F.B. 627 p. 10-12
127+42 <sup>48</sup>		Add 3060.9 to stationing
239+47 <sup>50</sup>	}	Route "B" F.B. 627 p. 12-19
		Stationing O.K.



# A Line of #1 Line

Sta.	B.S.	Hi.	F.S.	Red	Elev.
T.P.#21					395.55
T.#22	116	396.71			
126+90	Power Pole	Left Rd.			
127+42 <sup>⊙</sup>				3.8	392.9
" $\neq$				4.8	391.9
128+42 <sup>⊙</sup>				5.2	391.5
" $\neq$				5.7	391.0
129+42 <sup>⊙</sup>				5.0	391.7
" $\neq$				5.6	391.1
129+92 <sup>⊙</sup>				5.0	391.7
" $\neq$				5.8	390.9
129+87	Power Pole	Left Rd.			
130+00 <sup>⊙</sup>				5.0	391.7
" $\neq$				5.7	391.0
130+50 <sup>⊙</sup>				5.1	391.6
" $\neq$				5.7	391.0
131+00 <sup>⊙</sup>				5.3	391.4
" $\neq$				5.8	390.9
131+50 <sup>⊙</sup>				5.5	391.2
" $\neq$				6.1	390.6
132+00 <sup>⊙</sup>				5.7	391.0
" $\neq$				6.3	390.4
	116				395.55
					1.16
					396.71

U.S.G.S. DATUM  
+6.12  
ELEV.  $\frac{-1.00}{+5.12}$

43

⊙ = 8' offset of Pipe Line  
 $\neq$  = center of Pipe Line  
 127+42<sup>⊙</sup> to

A Line At Sta. 93+00  
 is eq. to Sta 127+42<sup>⊙</sup>  
 on #1 Line  
 We are noting #1 Line Sta.

397.0

396.1

396.2

396.0

396.1

396.1

396.0

395.7

395.5

**NOTE: ALL ELEVATIONS MARKED  
 "Green" SHOWS 1.0' SUBTRACTED  
 FROM CITY DATUM ELEVATION,  
 (Error of 1.0' found in Bench Mark).  
 ALSO ADD 6.12' TO CONVERT  
 CITY DATUM TO U.S.G.S. DATUM.**

EE.  
 11-2-45



Sta	B.S.	I.I.	F.S.	Red	Elev.
		396.71	✓		
132+50 <sup>⊙</sup>				5.8	390.9
" 2				6.4	390.3
132+75	Power Pole Left Rd				
133+00 <sup>⊙</sup>				5.7	391.0
" 2				6.2	390.5
133+50 <sup>⊙</sup>				5.7	391.0
" 2				6.3	390.4
T.P. #22			5.71?	5.7	391.00
A #23	2.30	393.30			
134+00 <sup>⊙</sup>				2.4	390.9
" 2				3.2	390.1
134+50 <sup>⊙</sup>				2.5	390.8
" 2				3.5	389.8
135+00 <sup>⊙</sup>				2.8	390.5
" 2				3.4	389.9
135+50 <sup>⊙</sup>				3.2	390.1
" 2				3.8	389.5
135+56	Power Pole Left Rd				
135+92	12" culvert	Flow line 5.5		5.5	387.8
136+00 <sup>⊙</sup>				3.5	389.8
" 2				4.0	389.3
136+50 <sup>⊙</sup>				3.8	389.5
" 2				4.2	389.1

396.71  
5.71  
391.00  
2.30  
393.30

395.4
395.4
395.6
395.5
395.2
394.9
395.0
394.6
392.9
394.4
394.2

SEE NOTE: PAGE #45  
EE



Sta.	B.S.	Hi.	F.S.	Rod	Elev.
		393.30	✓		
137+00	⊙			4.1	389.2
"	⊘			4.5	388.8
137+50	⊙			4.5	388.8
"	⊘			4.9	388.4
138+00	⊙			4.9	388.4
"	⊘			5.4	387.9
138+50	⊙			5.5	387.8
"	⊘			5.9	387.4
138+42	Power Pole Left Rd.				
139+00	⊙			5.8	387.5
"	⊘			6.2	387.1
139+50	⊙			6.1	387.2
"	⊘			6.7	386.6
139+80	12" Culvert Flow Line				8.7 384.6
140+00	⊙			6.2	387.1
"	⊘			6.9	386.4
140+50	⊙			6.1	387.2
"	⊘			6.9	386.4
141+00	⊙			5.9	387.4
"	⊘			6.6	386.7
141+25	Power Pole Left Rd.				
141+50	⊙			5.7	387.6
"	⊘			6.3	387.0

U.S.G.S.  
DATUM  
ELEV.

47

393.9

393.5

393.0

392.5

392.2

391.7

389.7

391.5

391.5

391.8

392.1

SEE NOTE: PAGE #45  
EE.

9



USGS  
DATUM  
ELEV.

Sta	B.S.	Hi.	F.S.	Red	Elev.
		393.30 ✓			
142+00 <sup>⊙</sup>				5.6	387.7
" 2				6.1	387.2
142+50 <sup>⊙</sup>				5.5	387.8
" 2				5.8	387.5
143+00 <sup>⊙</sup>				5.4	387.9
" 2				5.2	388.1
143+50 <sup>⊙</sup>				5.5	387.8
" 2				5.3	388.0
143+25	Power Pole				
T.P. #23			5.50		387.80 ✓
T. #24	0.58	388.38 ✓			
144+00 <sup>⊙</sup>				0.8	387.6
" 2				0.7	387.7
144+50 <sup>⊙</sup>				1.1	387.3
" 2				1.3	387.1
145+00 <sup>⊙</sup>				1.4	387.0
" 2				1.7	386.7
145+18	Power Pole				
145+50 <sup>⊙</sup>				1.9	386.5
" 2				2.3	386.1
146+00 <sup>⊙</sup>				2.6	385.8
" 2				3.2	385.2
146+50 <sup>⊙</sup>				3.2	385.2
" 2				3.9	384.5

3923.  
3926.  
393.2.  
393.1.  
392.8.  
392.2.  
391.8.  
391.2.  
390.3.  
389.6.

SEE NOTE: PAGE 45 EE.

0.58      5.50  
 393.30  
 0.58  
 393.88  
 5.50  
 388.38







U.S.G.S.  
DATUM  
ELEV.

Sta	B.S.	Hi.	F.S.	Red.	Elev.
		388.38 ✓			
152+00 <sup>⊙</sup>			7.9		380.5
" ♀			8.6		379.8
152+50 <sup>⊙</sup>			8.4		380.0
" ♀			8.5		379.9
153+00 <sup>⊙</sup>			8.8		379.6
" ♀			9.4		379.0
T.P.#24			8.84		379.54
A #25	4.08	383.62 ✓			
153+05	Power Pole Left Rd.				
153+50 <sup>⊙</sup>			4.2		379.4
" ♀			5.2		378.4
154+00 <sup>⊙</sup>			4.4		379.2
" ♀			5.1		378.5
154+50 <sup>⊙</sup>			4.5		379.1
" ♀			5.2		378.4
155+00 <sup>⊙</sup>			4.6		379.0
" ♀			5.2		378.4
155+50 <sup>⊙</sup>			4.7		378.9
" ♀			5.2		378.4
156+00 <sup>⊙</sup>			4.9		378.7
" ♀			5.5		378.1
156+10	Power Pole Left Rd.				
156+50 <sup>⊙</sup>			5.0		378.6
" ♀			5.1		378.5

4.08

8.84

388.38  
4.08  
392.46  
8.84  
383.62

3849.  
3850.  
3841.  
3835.  
3836.  
3835.  
3835.  
3832.  
3836.

SEE NOTE - PAGE 45 EE.



Sta.	D.S.	Ht.	F.S.	Red	Elev.
		383.62			
156+70	2' x 6' Culvert		Flow Line	8.5	375.1
157+00	"			5.1	378.5
"	"			5.3	378.3
157+50	"			5.1	378.5
"	"			5.4	378.2
157+50	Power Pole		Left Rd.		
158+00	"			5.1	378.5
"	"			5.4	378.2
158+50	"			5.1	378.5
"	"			5.7	377.9
158+85	Power Pole		Left Rd.		
159+00	"			5.1	378.5
"	"			5.6	378.0
159+50	"			5.1	378.5
"	"			5.4	378.2
160+00	"			5.1	378.5
"	"			5.4	378.2
160+25	Power Pole		Left Rd.		
160+50	"			5.1	378.5
"	"			5.3	378.3
161+00	"			5.2	378.4
"	"			5.6	378.0
161+50	"			5.4	378.2
"	"			5.4	378.2

U.S. G.S.  
DATUM  
ELEV.

51

380.2

383.4

383.3

SEE NOTE: PAGE \*45 EE.

383.3

383.0

383.1

383.3

383.3

383.4

383.1

383.3

P/



Sta	B.S.	Hi.	F.S.	Rod	Elev.
		383.62			
161492	Power Pole				
162+00				5.6	378.0
" 2				6.0	377.6
162+50				5.9	377.7
" 2				6.3	377.3
F.P. #25			5.86		377.96
π #26	3.37	381.13			
162+20	14" Culvert		Flow Line	5.2	375.93
163+00				3.4	377.7
" 2				3.2	377.9
163+50				3.4	377.7
" 2				3.2	377.9
164+00				3.4	377.7
" 2				3.0	378.1
164+50				3.4	377.7
" 2				3.0	378.1
165+00				3.6	377.5
" 2				3.4	377.7
165+19	Power Pole				
165+50				3.9	377.2
" 2				3.9	377.2
166+00				4.5	376.6
" 2				4.7	376.4

3.37

5.86

383.62

3.37

386.99

5.86

381.13

U.S.G.S.  
DATUM  
ELEV.K. Messersmith  
2 Melhorn  
Nov. 27, 1941

52

382.7

382.4

SEE NOTE: PAGE #45 EE.

381.05

383.0

383.0

383.2

383.2

382.8

382.3

381.5

P



Sta	BS.	Hi.	F.S.	Rod	Elev.
		386.13			
166+00				4.8	376.3
"				5.2	375.9
167+00				5.1	376.0
"				5.5	375.6
167+50				5.3	375.8
"				5.8	375.3
AC 167+72				5.3	375.8
"				6.4	374.7
167+85	30" Culvert		Flank Line	8.6	372.5
168+00				5.3	375.8
"				5.5	375.6
168+09	Power Pole		Left Rd.		
EC 168+39				5.4	375.7
"				5.8	375.3
168+50				5.4	375.7
"				5.9	375.2
169+00				5.5	375.6
"				5.9	375.2
169+50				5.6	375.5
"				6.1	375.0
170+00				5.6	375.5
"				6.0	375.1
170+50				5.7	375.4
"				6.2	374.9

U.S.G.S.  
DATUM.  
ELEV.

53

381.0  
380.7  
380.4  
379.8  
377.6  
380.7  
380.4  
380.3  
380.3  
380.1  
380.2  
380.0

SEE NOTE: PAGE # 45 EE.

P/



U.S.G.S.  
DATUM  
ELEV.

Sta.	B.S.	Hi.	FS.	Red	Elev
		381.13			
170765	Power Pole		Left Rd.		
171700 <sup>Ⓢ</sup>				5.9	375.2
" 2				6.1	375.0
171750 <sup>Ⓢ</sup>				6.1	375.0
" 2				6.5	374.6
172700 <sup>Ⓢ</sup>				6.4	374.7
" 2				6.9	374.2
172750 <sup>Ⓢ</sup>				6.6	374.5
" 2				6.9	374.2
173700 <sup>Ⓢ</sup>				6.8	374.3
" 2				7.0	374.1
173750 <sup>Ⓢ</sup>				7.0	374.1
" 2				7.5	373.6
173718	Power Pole		Left Rd.		
174700 <sup>Ⓢ</sup>				7.2	373.9
" 2				7.6	373.5
T.P.#26			7.24		373.89
π#27	3.91	377.80			
174710	12" Culvert		Flow Line	6.3	371.5
174750 <sup>Ⓢ</sup>				3.9	373.9
" 2				7.2	373.6
175700 <sup>Ⓢ</sup>				4.0	373.8
" 2				4.1	373.7
	3.91		7.24		

381.13  
 3.91  
 385.04  
 7.24  
 377.80

380.1  
 379.7  
 379.3  
 379.3  
 379.2  
 378.7  
 378.6  
 376.6  
 378.7  
 378.8

SEE NOTE: PAGE #45 EE.



Sta. B.S. Hi. F.S. Rod Elev

377.80 ✓

175+50<sup>Ⓢ</sup> 4.0 373.8

" 4.2 373.6

175+71 Power Pole Left Rd.

176+00<sup>Ⓢ</sup> 4.0 373.8

" 4.0 373.8

176+50<sup>Ⓢ</sup> 4.1 373.7

" 4.2 373.6

177+00<sup>Ⓢ</sup> 4.3 373.5

" 4.4 373.4

177+50<sup>Ⓢ</sup> 4.6 373.2

" 4.8 373.0

178+00<sup>Ⓢ</sup> 4.8 373.0

" 5.1 372.7

178+50<sup>Ⓢ</sup> 4.9 372.9

" 5.3 372.6

178+70 Power Poles FF Left Rd.

178+94 2'x7' Culvert Along Line 7.8 370.0

179+00<sup>Ⓢ</sup> 5.1 372.7

" 5.6 372.2 ✓

T.P.# 27 5.11 372.69

179+28 5.52 378.21 ✓

179+50<sup>Ⓢ</sup> 5.5 372.7

" 5.5 372.7

5.52

5.11

377.80  
5.52  
383.32  
5.11  
378.21

91

U.S.G.S.  
DATUM  
ELEV.

π Messersmith

53

φ Melhorn

Nov. 28, 1941

378.7

378.9

SEE NOTE: PAGE NO. 45 EE.

378.7

378.5

378.1

377.8

377.7

375.1

377.3

377.8



Sta.	B.S.	H <sub>i</sub>	I.S.	Rod	Elev.
		398.21 ✓			
180+00 <sup>Ⓢ</sup>				5.6	372.6
" ♀				5.5	372.7
180+18 <sup>Ⓢ</sup>	Power Pole Left Rd.				
B.C. 180+57.20				5.6	372.6
" ♀				5.9	372.3
180+28	3' X 6' culvert Flow Line		10.2		368.0
180+27	2" water Pipe		7.3		370.9
181+00 <sup>Ⓢ</sup>				5.6	372.6
" ♀				6.0	372.2
181+50 <sup>Ⓢ</sup>				5.7	372.5
" ♀				6.1	372.1
181+65	Power Pole Left Rd.				
182+00 <sup>Ⓢ</sup>				5.7	372.5
" ♀				6.1	372.1
182+50 <sup>Ⓢ</sup>				5.6	372.6
" ♀				6.0	372.2
E.C. 182+82.21 <sup>Ⓢ</sup>				5.6	372.6
" ♀				5.3	372.9
183+00 <sup>Ⓢ</sup>				5.5	372.6
" ♀				4.5	373.7
183+32	Power Pole Left Rd.				
183+50 <sup>Ⓢ</sup>				5.3	372.9
" ♀				1.2	377.0

U.S.G.S.  
DATUM  
ELEV.

377.6

377.4

373.1

376.0

377.3

377.2

377.2

377.3

378.0

378.8

382.1

SEE NOTE - PAGE #45 EE.

Plotted to here (25)

9/



Sta	B.S.	Hi.	F.S.	Rod	Elev.
		378.21 ✓			
184+00 <sup>⊙</sup>				4.9	373.3
" ♀				4.2	374.0
184+50 <sup>⊙</sup>				4.4	373.8
" ♀				3.1	375.1
185+00 <sup>⊙</sup>				3.7	374.5
" ♀				3.9	374.3
185+20	12" culvert	Flow line	5.6		372.6
185+50 <sup>⊙</sup>				2.8	375.4
" ♀				3.3	374.9
186+00 <sup>⊙</sup>				1.8	376.4
" ♀				2.0	376.2
186+12	Power Pole	Left Rd.			
186+50 <sup>⊙</sup>				0.6	377.6
" ♀				1.1	377.1
T.R. #28			0.62		377.59 ✓
▲ #29	12.77	390.36 ✓			
187+00 <sup>⊙</sup>				11.4	379.0
" ♀				11.9	378.5
187+50 <sup>⊙</sup>				9.9	380.5
" ♀				10.4	380.0
188+00 <sup>⊙</sup>				8.5	381.9
" ♀				8.7	381.5
188+50 <sup>⊙</sup>				7.1	383.3
" ♀				6.9	383.5

12.77

0.62

$$\begin{array}{r}
 378.21 \\
 12.77 \\
 \hline
 390.98 \\
 .62 \\
 \hline
 390.36
 \end{array}$$
U.S.G.S.  
DATUM  
ELEV.

57

379.1

380.2

379.4

377.7

380.0

381.3

382.2

383.6

385.1

386.6

388.6

SEE NOTE - PAGE #45 EE.



Sta.	B.S.	Hi.	F.S.	Red.	Elev.
		390.36 ✓			
189+00 <sup>Ⓢ</sup>				5.7	384.7
" 2				4.3	386.1
188+99	Power Pole Left Rd.				
189+50 <sup>Ⓢ</sup>				4.3	386.1
" 2				4.6	385.8
B.C. 189+73.22 <sup>Ⓢ</sup>				4.1	386.3
" 2				4.5	385.9
190+00 <sup>Ⓢ</sup>				3.7	386.7
" 2				4.3	386.1
190+50 <sup>Ⓢ</sup>				3.0	387.4
" 2				3.5	386.9
191+00 <sup>Ⓢ</sup>				2.9	387.5
" 2				3.5	386.9
191+03	Power Pole Left Rd.				
E.C. 191+39.22 <sup>Ⓢ</sup>				3.2	387.2
" 2				2.1	388.3
191+50 <sup>Ⓢ</sup>				3.3	387.1
" 2				2.5	387.9
192+00 <sup>Ⓢ</sup>				4.1	386.3
" 2				4.6	385.6
192+50 <sup>Ⓢ</sup>				5.3	385.1
" 2				5.5	384.9
T.P. #19			5.38		384.98
Σ #30	0.17	385.15 ✓			
	0.17		5.38		

390.56  
0.17  
390.53  
5.38  
385.15

U.S.G.S.  
DATUM  
ELEV.

391.2

390.9

391.0

391.2

392.0

392.0

393.4

Plotted to here

393.0

390.7

390.0

SEE NOTE: PAGE #45 EE



Sta.	B.S.	H.	F.S.	Rod	Elev.
		385.15 ✓			
193+00	⊙			1.0	384.2
"	♀			1.4	383.8
193+50	⊙			1.6	383.6
"	♀			2.1	383.1
194+00	⊙			2.5	382.7
"	♀			3.0	382.2
195+65	Power Pole Left Rd.				
BC 194+06.24	⊙			2.7	382.5
"	♀			3.2	382.0
194+50	⊙			3.9	381.3
"	♀			4.4	380.8
195+00	⊙			5.3	379.9
"	♀			6.0	379.2
EC 195+32.52	⊙			6.4	378.8
"	♀			7.0	378.2
195+35	Power Pole Left Rd.				
195+50	⊙			6.9	378.3
"	♀			7.6	377.6
196+00	⊙			8.2	377.0
"	♀			8.8	376.4
196+50	⊙			9.7	375.5
"	♀			9.9	375.3
197+00	⊙			11.1	374.1
"	♀			11.9	373.3

U.S.G.S.  
DATUM  
ELEV.

59

388.9.

388.2.

387.3.

SEE NOTE: PAGE #45 EE.

387.1.

385.9.

384.3.

383.3.

382.7.

381.5.

380.4.

378.4.



U.S.G.S.  
DATUM  
ELEV.

S <sub>70</sub>	B.S.	H <sub>i</sub>	F.S.	Rod	Elev.	
		385.15 ✓				
197+50 <sup>⊙</sup>				12.7	372.5	
" ♀				13.1	372.1 ✓	377.2
T.P.#30			12.75		372.40	
本#31	0.05	372.45 ✓				
198+00 <sup>⊙</sup>				1.6	370.9	
" ♀				2.2	370.3	375.4
198+50 <sup>⊙</sup>				3.2	369.3	
" ♀				3.8	368.7	373.8
199+00 <sup>⊙</sup>				4.6	367.9	
" ♀				5.2	367.3	372.4
B.C. 199+34.24 <sup>⊙</sup>				5.7	366.8	
" ♀				6.1	366.4	371.5
199+50 <sup>⊙</sup>				6.1	366.4	
" ♀				6.4	366.1	371.2
200+00 <sup>⊙</sup>				7.4	365.1	
" ♀				7.6	364.9	370.0
200+50 <sup>⊙</sup>				8.3	364.2	
" ♀				8.5	364.0	369.1
201+00 <sup>⊙</sup>				8.9	363.6	
" ♀				9.2	363.3	368.4
201+50 <sup>⊙</sup>				9.3	363.2	
" ♀				9.8	362.7	367.8
202+00 <sup>⊙</sup>				9.5	363.0	
" ♀				10.1	362.4	367.5
	0.05		12.75		385.15 1.05 385.20 12.75 372.45	

SEE NOTE: PAGE #45 EE.



U.S.G.S.  
DATUM  
ELEV.

Sta.	B.S.	Hi.	F.S.	Red.	Elev.
		372.45 ✓			
202+25	12" Culvert		Flow Line 12.3		360.7 ✓
T.P. #31			9.64		362.81
TP #32	2.53	365.34 ✓			
202+50 <sup>⊙</sup>				2.5	362.8
" 2				3.1	362.2
203+00 <sup>⊙</sup>				2.7	362.6
" 2				3.2	362.1
203+50 <sup>⊙</sup>				2.9	362.4
" 2				3.4	361.9
204+00 <sup>⊙</sup>				3.2	362.1
" 2				3.6	361.7
E.C. 204+10 <sup>⊙</sup>				3.2	362.1
" 2				3.7	361.6
204+50 <sup>⊙</sup>				3.4	361.9
" 2				3.7	361.6
205+00 <sup>⊙</sup>				3.7	361.6
" 2				4.0	361.3
205+50 <sup>⊙</sup>				3.9	361.4
" 2				4.2	361.1
206+00 <sup>⊙</sup>				4.2	361.1
" 2				4.5	360.8
206+50 <sup>⊙</sup>				4.6	360.7
" 2				5.1	360.2
	2.53		9.64		372.45 2.53 374.98 9.64 365.34

365.3

367.3

367.2

367.0

366.8

366.7

366.7

366.4

366.2

365.9

365.3

SEE NOTE: PAGE #45 EE.



U.S.G.S.  
DATUM  
ELEV.

365.3  
6.3

Sta.	B.S.	H.I.	F.S.	Rod	Elev.
		365.34			
207+00 <sup>⊙</sup>				5.0	360.3
" ⊘				5.4	359.9
207+50 <sup>⊙</sup>				5.4	359.9
" ⊘				5.7	359.6
208+00 <sup>⊙</sup>				5.8	359.5
" ⊘				6.1	359.2
208+15	Power Pole		Left Rd		
208+50 <sup>⊙</sup>				6.3	359.0
" ⊘				6.3	359.0
209+00 <sup>⊙</sup>				6.5	358.8
" ⊘				6.6	358.7
209+50 <sup>⊙</sup>				6.7	358.6
" ⊘				7.0	358.3
210+00 <sup>⊙</sup>				6.9	358.4
" ⊘				7.2	358.1
210+50 <sup>⊙</sup>				7.2	358.1
" ⊘				7.3	358.0
211+00 <sup>⊙</sup>				7.3	358.0
" ⊘				7.5	357.8
211+50 <sup>⊙</sup>				7.6	357.7
" ⊘				7.9	357.4
212+00 <sup>⊙</sup>				7.8	357.5
" ⊘				7.9	357.4

365.0.  
364.7.  
364.3.  
364.1.  
363.8.  
363.4.  
363.2.  
363.1.  
362.9.  
362.5.  
362.5.

SEE NOTE: PAGE #45 EE.



S70	B.S.	H.I.	F.S.	Rod	Elev.
		365.34			
212+50 <sup>⊙</sup>				7.8	357.5
" 2				8.1	357.2
213+00 <sup>⊙</sup>				7.9	357.4
" 2				8.2	357.1
213+50 <sup>⊙</sup>				7.9	357.4
" 2				8.3	357.0
214+00 <sup>⊙</sup>				7.9	357.4
" 2				8.4	356.9
T.P. #32			7.95		357.39
A #53	5.37	362.76			
214+50 <sup>⊙</sup>				5.3	357.5
" 2				5.7	357.1
215+00 <sup>⊙</sup>				5.3	357.5
" 2				5.8	357.0
215+50 <sup>⊙</sup>				5.3	357.5
" 2				5.7	357.1
216+00 <sup>⊙</sup>				5.4	357.4
" 2				5.8	357.0
216+50 <sup>⊙</sup>				5.4	357.4
" 2				5.8	357.0
217+00 <sup>⊙</sup>				5.4	357.4
" 2				5.7	357.1
217+50 <sup>⊙</sup>				5.3	357.5
" 2				5.7	357.1
5.37		7.95		$\begin{array}{r} 365.34 \\ 5.37 \\ \hline 370.71 \\ 2.45 \\ \hline 362.76 \end{array}$	

U. S. G. S.  
DATUM  
ELEV.

63

362.3

362.2

362.1

362.0

SEE NOTE - PAGE #45 EE.

362.2

362.1

362.2

362.1

362.1

362.2

362.2



Sta.	B.S.	H.I.	F.S.	Red.	Elev.
		362.76			
218+00 <sup>Ⓢ</sup>				5.2	357.6
" 2				5.6	357.2
218+50 <sup>Ⓢ</sup>				5.2	357.6
" 2				5.4	357.4
219+00 <sup>Ⓢ</sup>				5.2	357.6
" 2				5.3	357.5
219+50 <sup>Ⓢ</sup>				5.2	357.6
" 2				5.5	357.3
220+00 <sup>Ⓢ</sup>				5.2	357.6
" 2				5.5	357.3
220+50 <sup>Ⓢ</sup>				5.2	357.6
" 2				5.7	357.1
221+00 <sup>Ⓢ</sup>				5.2	357.6
" 2				5.6	357.2
221+50 <sup>Ⓢ</sup>				5.2	357.6
" 2				5.9	356.9
222+00 <sup>Ⓢ</sup>				5.2	357.6
" 2				6.1	356.7
222+50 <sup>Ⓢ</sup>				5.2	357.6
" 2				6.0	356.8
223+00 <sup>Ⓢ</sup>				5.2	357.6
" 2				5.9	356.9
223+50 <sup>Ⓢ</sup>				5.2	357.6
" 2				5.8	357.0

U.S.G.S.  
DATUM  
ELEV.

64

362.3

362.5

362.6

362.4

362.4

362.2

362.3

362.0

361.8

361.9

362.0

362.1

SEE NOTE: PAGE #45 EE.



U.S.G.S.  
DATUM  
ELEV.

Sta.	B.S.	Hi.	I.S.	Rod	Elev.
		362.76			
223+65	3'			10.2	352.6
224+00				5.2	357.6
"				5.4	357.4
224+50				5.2	357.6
"				5.4	357.4
225+00				5.2	357.6
"				5.3	357.5
225+50				5.1	357.7
"				5.6	357.2
226+00				5.1	357.7
"				5.6	357.2
226+50				5.0	357.8
"				5.3	357.5
227+00				4.9	357.9
"				5.2	357.6
227+50				4.6	358.2
"				5.0	357.8
228+00				4.5	358.3
"				4.6	358.2
T.P. #33			4.50		358.26
A #34	3.57	361.83			
228+30					
228+50				3.5	358.3
"				3.8	358.0

3.57

4.50

362.76  
 3.57  
 366.33  
 4.50  
 361.83

SEE NOTE: PAGE #45 EE.

363.1



Sta	B.S.	Hi.	F.S.	Rod	Elev.
		361.83			
229+00 <sup>⊙</sup>				3.5	358.3
" 2				3.8	358.0
229+50 <sup>⊙</sup>				3.7	358.1
" 2				3.9	357.9
230+00 <sup>⊙</sup>				3.6	358.2
" 2				4.0	357.8
230+50 <sup>⊙</sup>				3.9	357.9
" 2				4.1	357.7
231+00 <sup>⊙</sup>				4.1	357.7
" 2				4.3	357.5
231+50 <sup>⊙</sup>				4.3	357.5
" 2				4.6	357.2
232+00 <sup>⊙</sup>				4.6	357.2
" 2				4.7	357.1
232+50 <sup>⊙</sup>				4.8	357.0
" 2				4.9	356.9
233+00 <sup>⊙</sup>				5.1	356.7
" 2				5.1	356.7
233+50 <sup>⊙</sup>				5.2	356.6
" 2				5.3	356.5
234+00 <sup>⊙</sup>				5.2	356.6
" 2				5.4	356.4
234+50 <sup>⊙</sup>				5.3	356.5
" 2				5.5	356.3

U.S.G.S.  
DATUM  
ELEV.

363.1

363.0

362.9

362.8

362.6

362.3

362.2

362.0

361.8

361.6

361.5

361.4

SEE NOTE: PAGE # 45 EE.



Sta.	B.S.	Hi.	F.S.	Rod	Elev.
		361.83			
235+00 <sup>Ⓢ</sup>				5.4	356.4
" 2				5.6	356.2
235+50 <sup>Ⓢ</sup>				5.4	356.4
" 2				5.6	356.2
236+00 <sup>Ⓢ</sup>				5.5	356.3
" 2				5.8	356.0
236+50 <sup>Ⓢ</sup>				5.6	356.2
" 2				5.6	356.2
237+00 <sup>Ⓢ</sup>				5.6	356.2
" 2				5.7	356.1
237+50 <sup>Ⓢ</sup>				5.7	356.1
" 2				5.8	356.0
238+00 <sup>Ⓢ</sup>				5.7	356.1
" 2				5.9	355.9
238+50 <sup>Ⓢ</sup>				5.8	356.0
" 2				6.0	355.8
239+00 <sup>Ⓢ</sup>				5.8	356.0
" 2				6.2	355.6
239+50 <sup>Ⓢ</sup>				5.8	356.0
" 2				6.2	355.6
240+00 <sup>Ⓢ</sup>				5.8	356.0
" 2				6.2	355.6
T.P.#34				5.78	356.05
T.#35	10.50	366.55			

CONT'D. F.B. # 688, Pg 1

10.50 5.78

361.83  
10.50  
372.33  
5.78  
366.55

U.S.G.S. DATUM ELEV. Corrected

355.2	361.3
355.2	361.3
355.0	361.1
355.2	361.3
355.1	361.2
355.0	361.1
355.1	361.0
354.9	361.0
354.8	360.9
355.0	360.7
354.6	360.7
355.0	360.7
354.6	360.7
354.6	360.7

Plotted on preliminary sheet 18

Note all elevation 54 byed to correction of -1.0 ft

SEE NOTE: PAGE #45

Pre Sheet 19



Sta	B.S.	Hi.	I.S.	Rod	Elev
		366.55			
240+50 <sup>Ⓢ</sup>				10.2	356.4
" 2				10.6	356.0
241+00 <sup>Ⓢ</sup>				9.8	356.8
" 2				10.1	356.5
241+15	12" Culvert	Flow Line		12.0	354.6
241+50 <sup>Ⓢ</sup>				8.9	357.7
" 2				9.4	357.1
242+00 <sup>Ⓢ</sup>				7.9	358.7
" 2				8.2	358.4
241+85	Tel. Pole	Left Rd.			
242+50 <sup>Ⓢ</sup>				6.9	359.7
" 2				7.2	359.4
243+00 <sup>Ⓢ</sup>				6.2	360.4
" 2				6.7	359.9
243+50 <sup>Ⓢ</sup>				5.7	360.9
" 2				6.1	360.5
244+00 <sup>Ⓢ</sup>				5.3	361.3
" 2				5.7	360.9
244+03	Tel. Pole	Left Rd.			
244+50 <sup>Ⓢ</sup>				5.3	361.3
" 2				5.6	361.0
245+00 <sup>Ⓢ</sup>				5.2	361.4
" 2				5.4	361.2

Corrected

355.4
355.0
355.9
355.5
353.6
356.7
356.1
357.4
358.4
358.9
359.5
359.9
360.0
360.2

Note,  
 Subtract 1.0' from all  
 elevations on this page

Plotted prelim  
 sheet #19

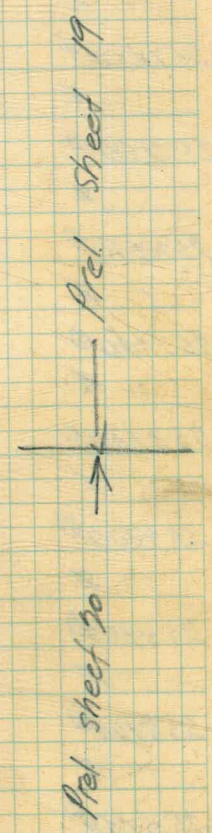


Sta.	B.S.	Hi.	I.S.	Rod	Elev.
		366.55 ✓			
245+50				5.2	361.4
"				5.4	361.2
246+00				5.2	361.4
"				5.4	361.2
246+50				5.2	361.4
"				5.3	361.3
246+60	Tel. Pole Left Rd.				
246+96	12" culvert Flow Line 7.6 359.0				
247+00				5.0	361.6
"				4.8	361.8
247+02	Stub Pole				
247+50				4.6	362.0
"				4.8	361.8
248+00				4.1	362.5
"				4.3	362.3
248+50				3.6	363.0
"				3.7	362.9
249+00				2.9	363.6
"				3.0	363.6
249+30	Tel. Pole Left Rd.				
249+50				2.0	364.6
"				2.2	364.4
250+00				1.4	365.2
"				1.7	364.9

Corrected Elev

360.2
360.2
360.3
358.0
360.8
360.8
361.3
361.9
362.6
363.4
363.9

Note. All elevations this page subject to correction of -1.0'





Sta	B.S.	Hi.	I.S.	Rod	Elev.
		366.55			
T.P. #35			0.98		365.57
M #36	5.06	370.63			
250+50				5.1	365.5
" 2				5.4	365.2
251+00				4.7	365.9
" 2				4.8	365.8
251+50				4.6	366.0
" 2				4.7	365.9
252+00				4.5	366.1
" 2				4.5	366.1
252+50				4.4	366.2
" 2				4.5	366.1
253+00				4.4	366.2
" 2				4.6	366.0
253+50				4.3	366.3
" 2				4.6	366.0
254+00				4.4	366.2
" 2				4.7	365.9
254+50				4.6	366.0
" 2				4.9	365.7
255+00				4.9	365.7
" 2				5.1	365.5
255+50				5.1	365.5
" 2				5.3	365.3
	5.06		0.98		366.55
					5.06
					371.92
					0.98
					370.63

Corrected

Note

Correction -1.6

364.2

364.8

364.9

365.1

365.1

365.0

365.0

364.9

364.7

364.5

364.3



S <sub>70</sub>	B.S.	Hi.	F.S.	Rad	Elev.
		370.63 ✓			
256+00 <sup>Ⓢ</sup>				5.5	365.1
" 2				5.6	365.0
256+50 <sup>Ⓢ</sup>				5.7	364.9
" 2				5.9	364.7
257+00 <sup>Ⓢ</sup>				6.0	364.6
" 2				6.3	364.3
257+50 <sup>Ⓢ</sup>				6.0	364.6
" 2				6.3	364.3
258+00 <sup>Ⓢ</sup>				6.0	364.6
" 2				6.5	364.1
258+50 <sup>Ⓢ</sup>				6.1	364.5
" 2				6.6	364.0
259+00 <sup>Ⓢ</sup>				6.0	364.6
" 2				6.3	364.3
259+05	12" Culvert	Flow Line		9.8	360.8 ✓
T.P. #36			6.00		364.63
A #37	5.44	370.07 ✓			
259+50 <sup>Ⓢ</sup>				5.4	364.7
" 2				5.8	364.3
260+00 <sup>Ⓢ</sup>				5.4	364.7
" 2				5.8	364.3
260+50 <sup>Ⓢ</sup>				5.4	364.7
" 2				5.7	364.4

5.44

6.00

370.63  
 5.44  
 376.07  
 6.00  
 370.07

Correction

Note

Correction -1.0

364.0

363.7

363.3

363.3

363.1

363.0

363.3

359.8

363.3

363.3

363.4



P Melhorn

Mar. 28, 1941

S7a	B.S.	Hi.	I.S.	Rad	Elev.	Corrected
		370.07 ✓				
261+00 <sup>⊙</sup>				5.4	364.7	
" 2				5.7	364.4	363.4
261+50 <sup>⊙</sup>				5.3	364.8	
" 2				5.5	364.6	363.6
262+00 <sup>⊙</sup>				5.3	364.8	
" 2				5.4	364.7 ✓	363.7
T.P. #37			5.33		364.74	
TP #38	5.62	370.36 ✓				
262+50 <sup>⊙</sup>				5.5	364.9	
" 2				5.7	364.7	363.7
263+00 <sup>⊙</sup>				5.4	365.0	
" 2				5.3	365.1	364.1
263+50 <sup>⊙</sup>				5.4	365.0	
" 2				5.5	364.9	363.9
264+00 <sup>⊙</sup>				5.4	365.0	
" 2				5.5	364.9	363.9
264+50 <sup>⊙</sup>				5.3	365.1	
" 2				5.4	365.0	364.0
265+00 <sup>⊙</sup>				5.2	365.2	
" 2				5.3	365.1	364.1
265+50 <sup>⊙</sup>				5.1	365.3	
" 2				5.2	365.2	364.2
266+00 <sup>⊙</sup>				5.1	365.3	
" 2				5.3	365.1	365.1
	5.62		5.33		370.07	
					5.62	
					375.69	
					5.33	
					370.36	

Note

Correction

-1.0



Sta	B.S.	Hi	F.S.	Rod	Elev.
		370.36 ✓			
266+50 <sup>⊙</sup>				5.4	365.0
" 2				5.8	364.6
267+00 <sup>⊙</sup>				5.9	364.5
" 2				6.2	364.2
267+50 <sup>⊙</sup>				6.6	363.7
" 2				6.9	363.5
268+00 <sup>⊙</sup>				7.2	363.2
" 2				7.6	363.7
268+50 <sup>⊙</sup>				7.6	362.8
" 2				8.1	362.3
269+00 <sup>⊙</sup>				8.0	362.4
" 2				8.4	362.0
269+50 <sup>⊙</sup>				8.3	362.1
" 2				8.6	361.8
270+00 <sup>⊙</sup>				8.7	361.7
" 2				8.9	361.5
270+50 <sup>⊙</sup>				9.1	361.3
" 2				9.2	361.2
271+00 <sup>⊙</sup>				9.4	361.0
" 2				9.5	360.9
271+50 <sup>⊙</sup>				9.8	360.6
" 2				10.0	360.4
272+00 <sup>⊙</sup>				10.2	360.2
" 2				10.5	359.9

Note

364.0 Correction -1.0

363.6

363.5

363.2

362.7

362.5

362.2

362.0

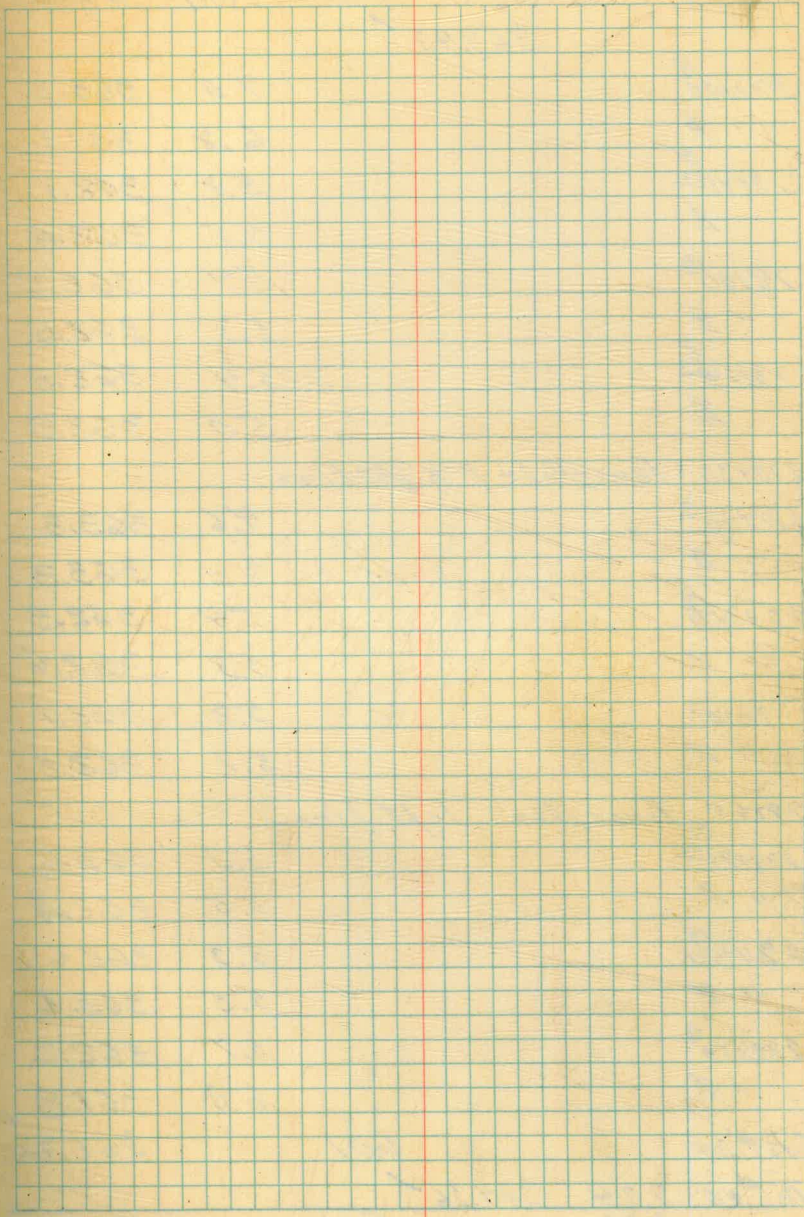
361.8

361.4

360.7

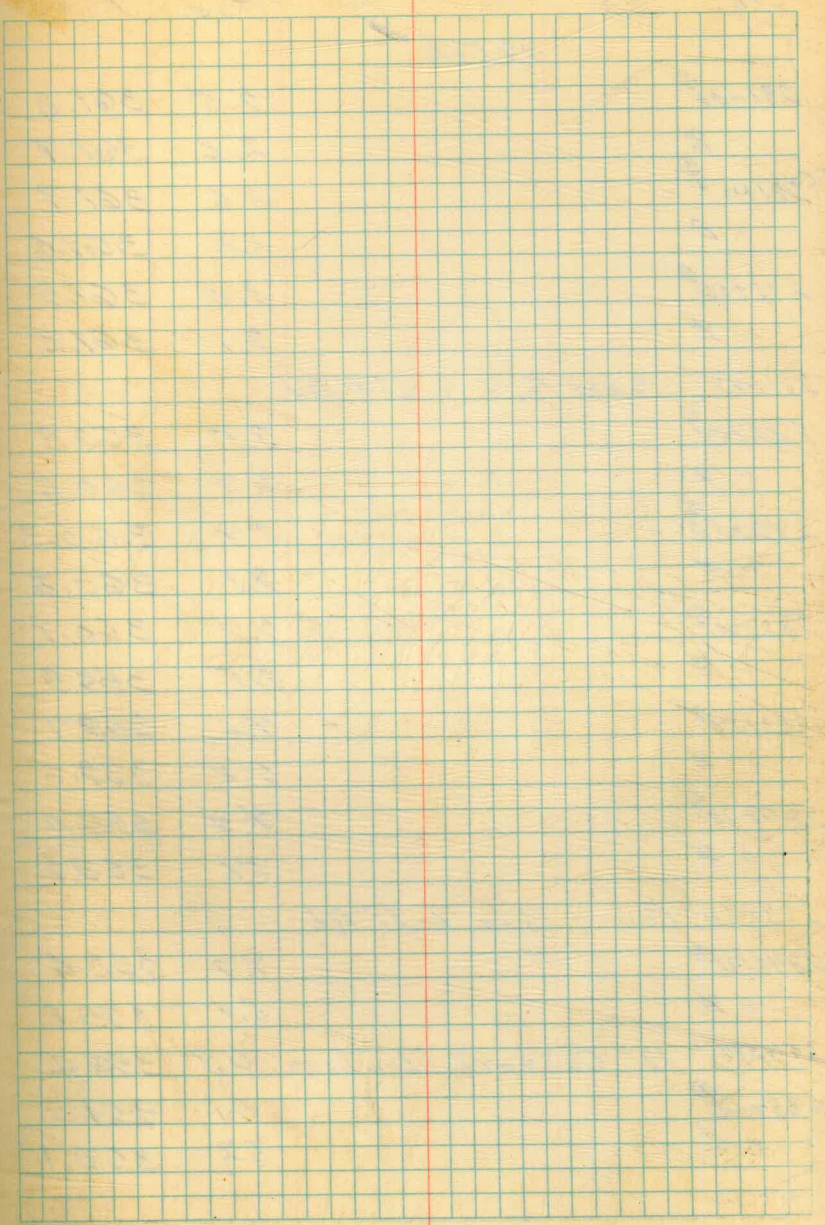


Sta.	B.S.	Hi.	F.S.	Red	Elev.
		370.36 ✓			✓
T.P. #38			10.19		360.17
π #39	7.76	367.93 ✓			
272+50 ①				8.1	359.8
" 2				8.3	359.6
273+00 ①				8.4	359.5
" 2				8.7	359.2
273+50 ①				8.8	359.1
" 2				9.0	358.9
274+00 ①				9.1	358.8
" 2				9.3	358.6
274+50 ①				9.4	358.5
" 2				9.6	358.3
274+91	2 = 12" Pipes curvert Flowline		11.4		356.5
275+00 ①				9.5	358.4
" 2				9.8	358.1
275+50 ①				9.6	358.3
" 2				9.9	358.0
276+00 ①				8.8	359.1
" 2				9.4	358.5
B.C. 276+42 ①				8.0	359.9
" 2				8.3	359.6
276+50 ①				7.8	360.1
" 2				8.1	359.8
7.76			10.19		370.36
					7.76
					378.12
					10.19
					367.93





Sta	P.S.	Hi.	F.S.	Rod	Elev.
		367.93			
277+00				7.0	360.9
"				6.8	361.1
P.C. 277+48.3				5.8	362.1
"				5.5	362.4
278+00				5.4	362.5
"				5.3	362.6
E.C. 278+24.2				5.4	362.5
"				5.0	362.9
278+30	Power Pole 7' Right Line				
278+50				4.6	363.3
"				4.6	363.3
279+00				5.4	362.5
"				5.3	362.6
279+50				5.2	362.7
"				5.1	362.8
279+65	Power Pole Left Line				
B.C. 279+86.2				5.3	362.6
"				5.5	362.4
280+00				5.3	362.6
"				5.5	362.4
280+50				5.7	362.2
"				6.0	361.9
T.P. #39			6.01		361.92
T.#40	2.34	364.16	6.01		
	2.34				367.93
					2.34
					370.27
					6.01
					364.26





Sta	B.S.	Hi.	I.S.	Rod.	Elev.
		364.26 ✓			
281+00 <sup>Ⓢ</sup>				2.5	361.8
" 2				2.6	361.7
E.C. 281+15 <sup>4</sup>				2.6	361.7
" 2				2.7	361.6
281+30 <sup>Ⓢ</sup>				3.0	361.3
" 2				3.1	361.2
281+43	Power Pole Left Rd.				
282+00 <sup>Ⓢ</sup>				3.5	360.8
" 2				3.7	360.6
282+50 <sup>Ⓢ</sup>				3.9	360.3
" 2				4.1	360.2
283+00 <sup>Ⓢ</sup>				4.2	360.1
" 2				4.5	359.8
283+50 <sup>Ⓢ</sup>				4.6	359.7
" 2				4.8	359.5
284+00 <sup>Ⓢ</sup>				4.9	359.4
" 2				5.1	359.2
283+60	Power Pole Left Rd.				
284+50 <sup>Ⓢ</sup>				4.9	358.4
" 2				5.1	359.2
284+54	12" Culvert Flow Line				
				6.9	356.4
285+00 <sup>Ⓢ</sup>				5.1	359.2
" 2				5.2	359.1



Sta.	B.S.	Hi.	F.S.	Rod	Elev.
		364.26			
284+35	Power Pole Left Line				
285+50 <sup>Ⓢ</sup>				5.2	359.1
" ♀				5.3	359.0
286+00 <sup>Ⓢ</sup>				5.3	359.0
" ♀				5.4	358.9
286+50 <sup>Ⓢ</sup>				5.5	358.8
" ♀				5.6	358.7
287+00 <sup>Ⓢ</sup>				5.8	358.5
" ♀				5.9	358.4
287+50 <sup>Ⓢ</sup>				6.1	358.2
" ♀				6.2	358.1
287+35	Power Pole Left Rd.				
288+00 <sup>Ⓢ</sup>				6.5	357.8
" ♀				6.7	357.6
288+50 <sup>Ⓢ</sup>				7.3	357.0
" ♀				7.5	356.8
289+00 <sup>Ⓢ</sup>				8.1	356.2
" ♀				8.3	356.0
289+50 <sup>Ⓢ</sup>				8.9	355.4
" ♀				9.1	355.2
290+00 <sup>Ⓢ</sup>				9.5	354.8
" ♀				9.8	354.5
290+50 <sup>Ⓢ</sup>				10.2	354.1
" ♀				10.3	354.0



Messersmith  
& Malhorn  
Dec. 1, 1941

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Sta.	B.S.	Hi.	F.S.	Rad.	Elev.
TR#40		364.26	10.14		354.12
T#41	0.98	355.10			
290+25	Power Pole				Left Rd
291+00				1.5	353.6
" 2				1.8	353.3
291+50				2.2	352.9
" 2				2.5	352.6
292+00				2.7	352.4
" 2				3.0	352.1
292+50				3.2	351.9
" 2				3.6	351.5
293+00				3.8	351.3
" 2				4.2	350.9
293+25	Power Pole				Left Rd
293+50				4.5	350.6
" 2				5.0	350.1
294+00				5.2	349.9
" 2				5.6	349.5
294+50				5.9	349.2
" 2				6.3	348.8
295+00				6.6	348.5
" 2				6.9	348.2
295+50				7.2	347.9
" 2				7.5	347.6

0.98

10.14

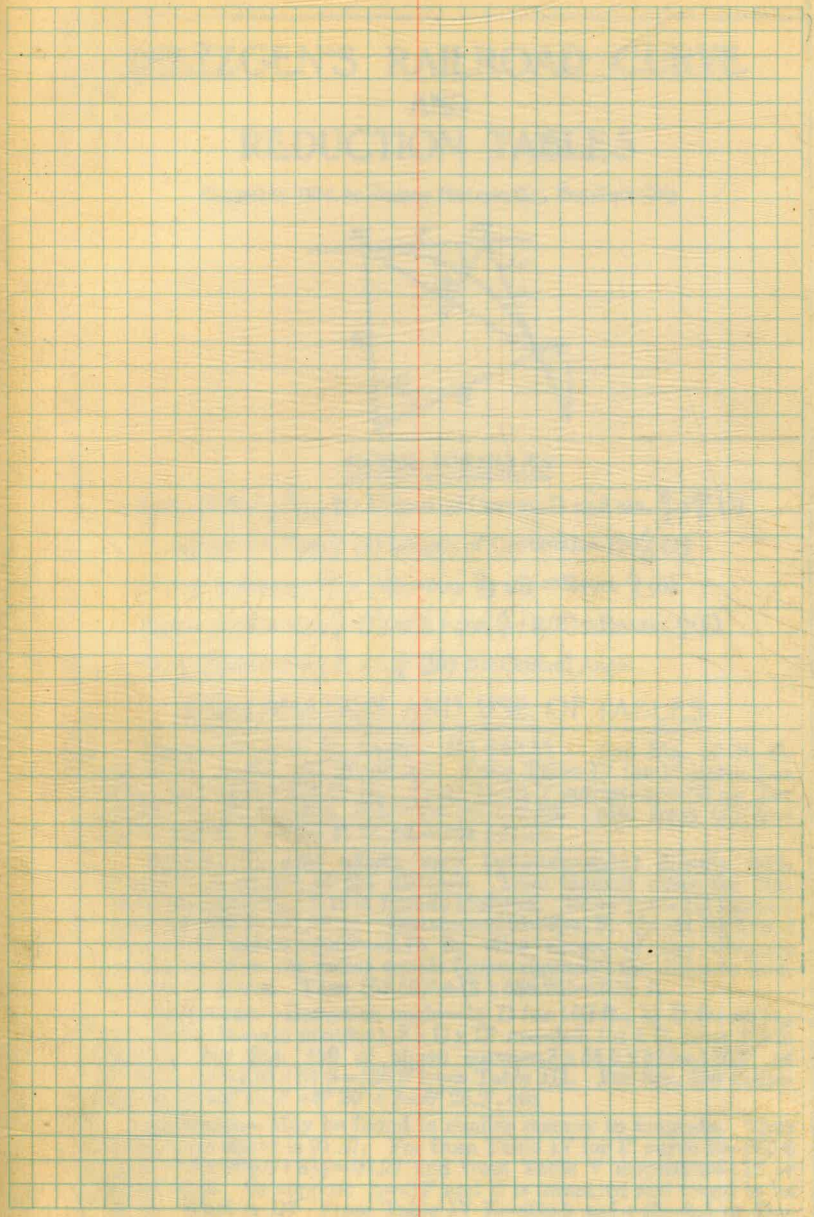
364.26  
0.98  
365.24  
10.14  
355.10

Levels find to Book 601



Sta.	B.S.	Hi.	f.s.	Rod.	Elev.
		355.10	✓		
296+00				7.7	347.4
" 2				8.0	347.1
296+50				8.1	347.0
" 2				8.5	346.6
296+30	Power Pole Left Rd.				
297+00				8.5	346.6
" 2				8.9	346.2
297+50				8.9	346.2
" 2				9.2	345.9
298+00				9.2	345.9
" 2				9.6	345.5
298+12	Power Pole Left Rd.				
298+50				9.5	345.6
" 2				9.7	345.4
299+00				10.0	345.1
" 2				10.2	344.9
299+50				10.4	344.7
" 2				10.6	344.5
299+25	Power Pole Left Rd.				
300+00				10.9	344.2
" 2				11.2	343.9
T.P.#41				10.86	344.24 ✓
T.#42					

Netted Book # 601  
 10.86  
 355.10  
 10.86  
 344.24

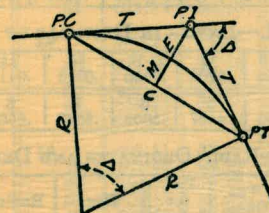




Low → 343 TO 471 ← High  
RUN PROFILE 325 TO 475

## DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

Copyright, 1914, by Eugene Dietzgen Co., New York City



### CURVE FORMULAS

$$\text{Radius} = R = \frac{50}{\sin \frac{D}{2}} \quad (1) \quad \text{Degree of Curve} = D \text{ and } \sin \frac{D}{2} = \frac{50}{R} \quad (2)$$

$$\text{Tangent} = T = R \tan \frac{\Delta}{2} \quad (3) \quad \text{Length of Curve} = L = 100 \frac{\Delta}{D} \quad (4)$$

$$\text{Middle ordinate} = M = R \left(1 - \cos \frac{\Delta}{2}\right) \quad (5) = R \text{vers} \frac{\Delta}{2} \quad (6)$$

$$\text{External} = E = T \tan \frac{\Delta}{4} \quad (7) = R \div \cos \frac{\Delta}{2} - R \quad (8) = R \text{exsec} \frac{\Delta}{2} \quad (9)$$

$$\text{Long Chord} = C = 2 R \sin \frac{\Delta}{2} \quad (10) \quad \Delta = \text{Central Angle}$$

### EXPLANATION AND USE OF TABLES

**Stations.**—Given P. I. = Sta. 161 + 60.35 to find Sta. of P. C. and P. T.  $\Delta = 62^\circ 10'$   $D = 8^\circ 20'$ . From Table IV for  $1^\circ$  curve  $T = 3454.1$  and  $\div 8\frac{1}{2} = 414.49$  ft. From Table V correction = .36 or  $T = 414.85$  ft. P. C. = Sta. P. I. -  $T = 157 + 45.50$ . Also from (4)  $L = 746.00$  and P. T. = Sta. P. C. +  $L = 164 + 91.50$ .

**Offsets.**—Tangent offsets vary (approximately) directly with  $D$  and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft. = 7.27 ft. Distance =  $158 - \text{Sta. P. C.} = 54.50$ , hence offset =  $7.27 \frac{(54.50 + 100)^2}{100^2} = 2.16$  ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus  $(54.50)^2 \div (2 \times 688.26) = 2.16$  ft.

**Deflections.**—Deflection angle =  $\frac{1}{2} D$  for 100 ft.,  $\frac{1}{4} D$  for 50 ft., etc. For  $c$  ft. = (in minutes)  $.3 \times C \times D^\circ$  or = defl. for 1 ft. from Table III  $\times C$ . For Sta. 158 of above curve =  $.3 \times 54.5 \times 8\frac{1}{2} = 136.2'$  or  $2^\circ 16.2'$ , or =  $2.50 \times 54.5 = 136.2'$  from Table III. For Sta. 159 deflection angle =  $2^\circ 16.2' + 8^\circ 20' \div 2 = 6^\circ 26.2'$ , etc.

**Externals.**—May be found in similar manner to tangents. Thus  $E$  for curve above is 91.37. For from Table IV for  $1^\circ$  curve  $E = 960.6$  for  $8^\circ 20' = 960.6 \div 8\frac{1}{2} = 91.27$  and from Table V correction = .10 or  $E = 91.37$  ft. Or suppose  $\Delta = 32^\circ$  and  $E$  is measured and found to be 42 ft. What is  $D$ ? From Table IV  $E = 230.9$  and  $\div 42 = 5.5$  or  $D = 5^\circ 30'$ .



76 42 94  
 255+50  
 92 92

41.88  
 30 61  
 5.27

439 83  
 432.70  
 6.13

5 76 03'00" W  
 13 30  
 89 33

11  
 30  
 8

60.90  
 60.90  
 60.90

DISTANCES FROM CENTER OF ROADWAY FOR  
 CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1 1/2  
 For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be 41.9+(20-16)÷2 or 2 ft. added to 41.9=43.9. For slopes of 1 on 1 see inside of front cover.

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