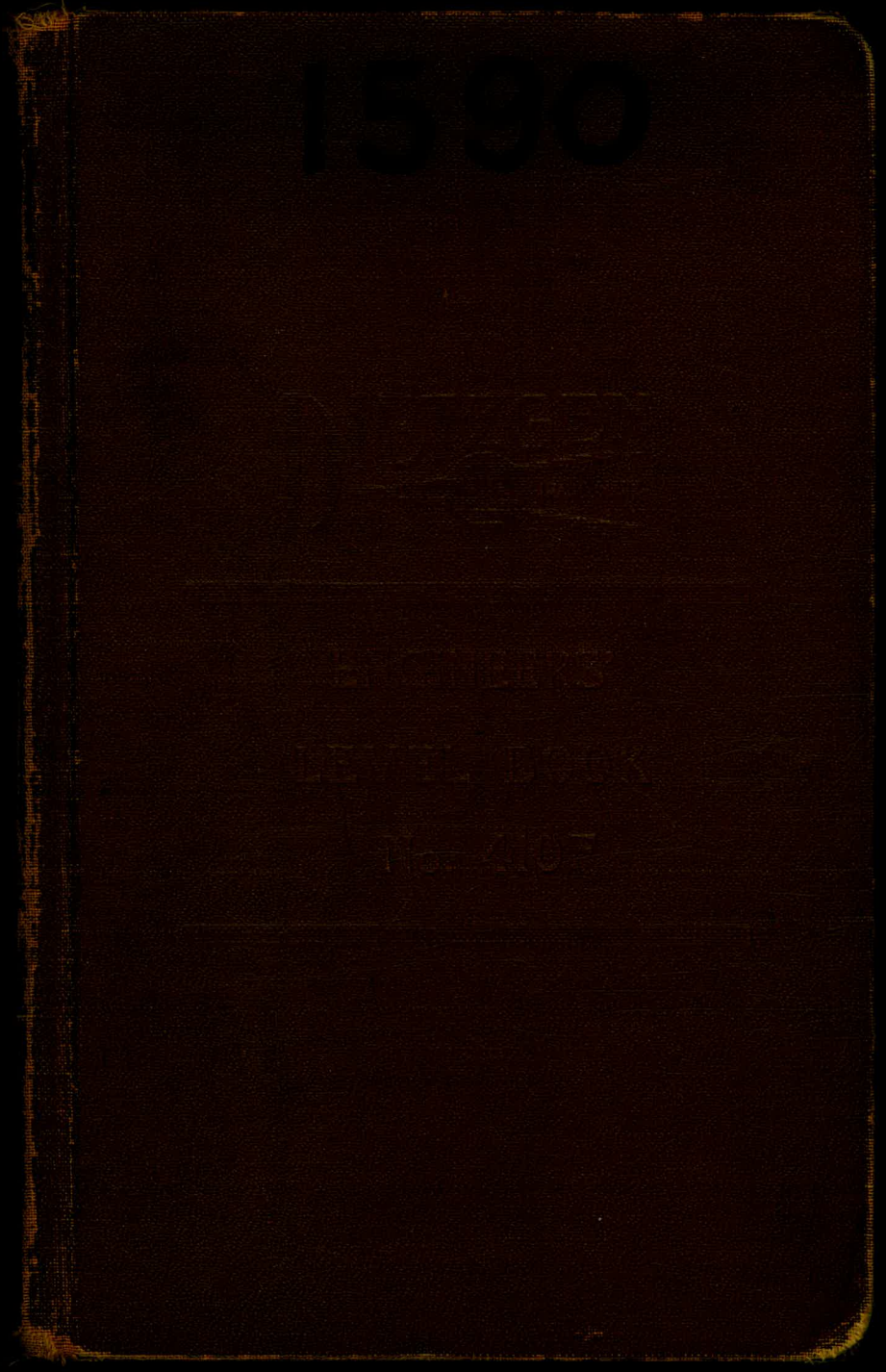

1980

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)÷2 or 2 ft. added to 30.6 =32.6. For slopes of 1 on 1½ see inside of back cover.

1590

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.

Walker
Bhs
Isbell
10-25-40

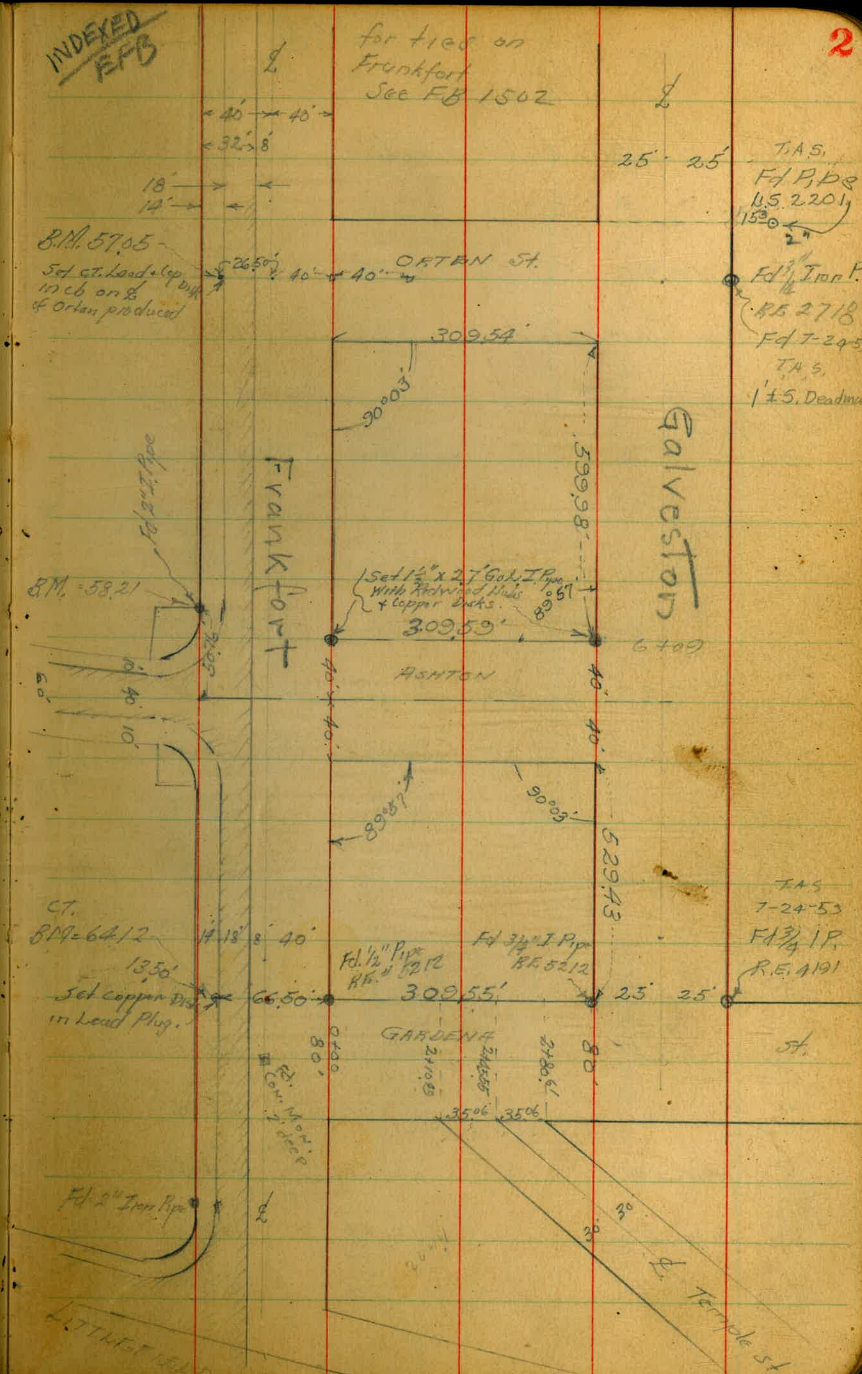
CROSS SECTION GARDENA St. 80' Wide 20' cbs 10' 4/s

from Frankfort to Galveston

B.M. B.P. Con. Mon SW. Cor. Jellett & Morena inside R/W	3.20	14.71		11.51	
T.P.	5.62	14.45	5.88	8.83	
T.P.	12.45	24.44	2.46	11.99	
T.P.	12.53	36.58	0.39	24.05	
T.P.	12.46	48.70	0.34	36.24	
P.C. 20' Prop R. on Milton, 2" Iron Pipe SW. Cor Erie & Milton			6.39	42.31	
T.P.	10.98	53.38	0.30	48.40	
on ℄ Mon. Milton & Frankfort on copper Disk in 1" Pipe & Napier, West line Frankfort			5.70	53.68	Sketch P-3
T.P.	7.54	62.30	4.62	54.76	
T.P.	4.88	61.98	5.25	57.05	Cop. Disk in cb ℄ Orten W.cb. Frankfort
on Highest Point on 2" Iron Pipe on P.C. 20' Prop R. on W.L. Frankfort at Ashton T.P.	6.67	64.88	3.72	58.21	NW. 2" Pipe Ashton & Frankfort
cop Disk N.L. Gardena W.cb Frankfort			0.76	64.12	

Check Levels - over Above Line levels

B.M. B.P. Con Mon Jellett & Morena	3.38	14.89		11.51	
T.P.	5.85	14.66	6.08	8.81	
T.P.	12.69	24.67	2.68	11.98	
T.P.	12.67	36.70	0.64	24.03	
T.P.	12.30	48.52	0.48	36.22	
Erie & Milton chk. BM. Iron Pipe			6.23	42.29	
				42.30 on Mon.	



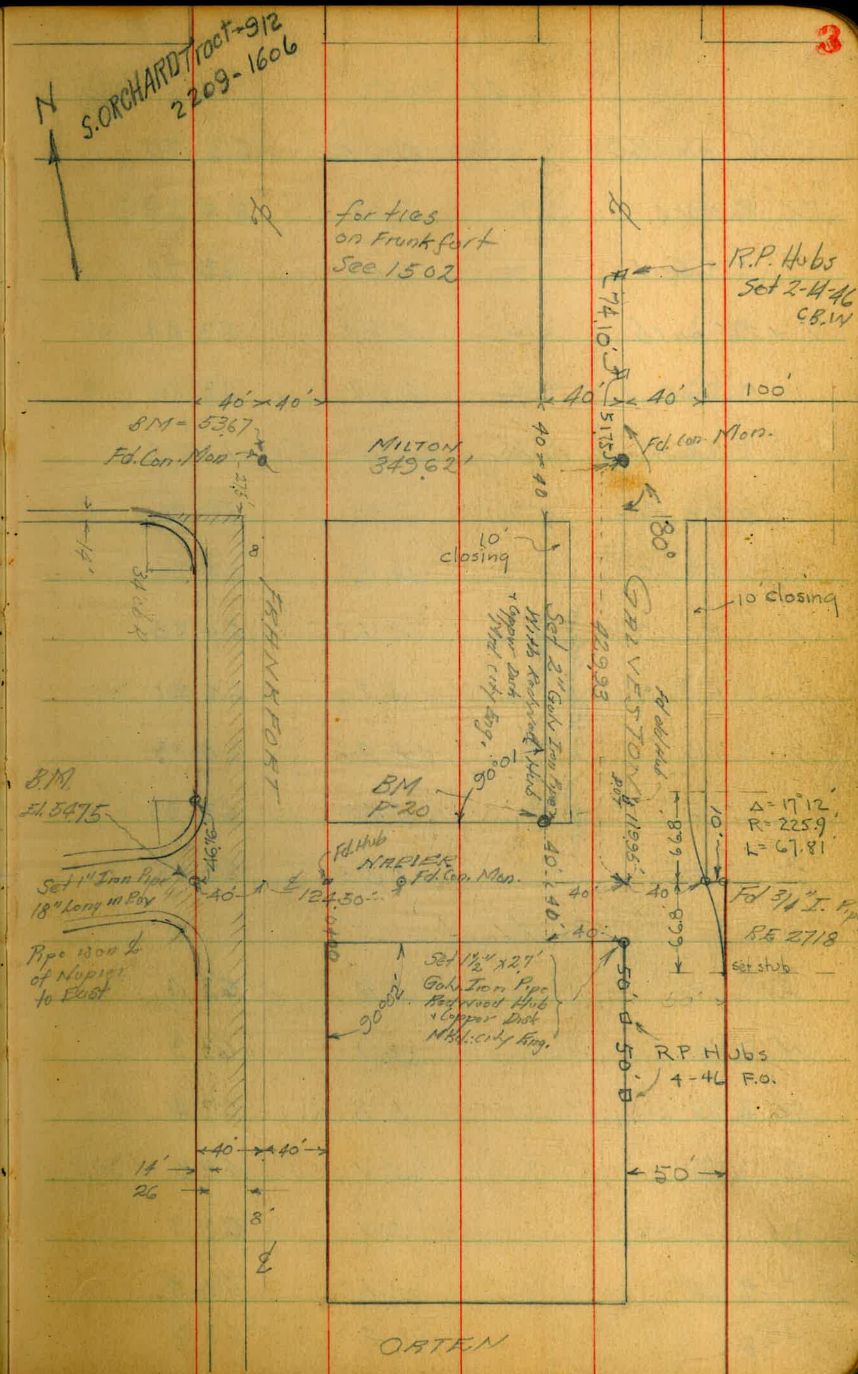
Gardena Street
Cont. from P-2

Chk. Levels Cont.

		π = P-2 48.52			
T.P.	10.95	59.33	0.14	48.38	Mean Elev
Chk. ℄ Mon. Milton + Frankfort			5.67	53.66	53.67
				~~53.67~~ = Mean.	
Pipe W.L. Frankfort and ℄ Napier T.P.	7.59	62.33	4.59	54.74	Mean 54.75
				~~54.75~~ - Mean	
on Copper Disk T.P.	4.58	61.63	5.28	57.05	W cb. Frankfort And ℄ Orten st. N.Y.I. 2" Iron Pipe
T.P.	6.68	64.89	3.42	58.21	Ashton + Frankfort
on Copper Disk in Lead Plug. T.P.	2.29	66.41	0.77	64.12	W cb. Frankfort on North line Gardena

West cb Line Gardena = 14' East of W.L. Frankfort

N-20 on cb.	2.46	63.95	
" " Gut paving.	3.10	63.31	
N.L. on cb.	2.28	64.13	
" " Gut "	2.95	63.46	
N cb. on cb.	2.23	64.18	
" " Pav.	2.82	63.49	
℄ on cb.	2.12	64.29	
℄ " Gut.	2.69	63.72	
S cb on cb.	2.08	64.33	



66.41

S cb. on Pav.	2.71	63.70
SL " cb.	2.02	64.39
" " Gut	2.69	63.72
SL +20' on cb.	2.97	63.44
" " " Gut.	2.61	63.80
East edge existing Paving = 8' West of ℄		
S-20 on Pav.	2.06	64.35
S " "	2.05	64.36
cb. " "	2.13	64.28
℄ " "	2.20	64.21
cb. " "	2.28	64.13
N " "	2.42	63.99
+20 " "	2.53	63.88
℄ Frankfort		
-20	3.0	63.4
N	3.1	63.3
cb.	3.0	63.4
℄	3.1	63.3
cb.	3.1	63.3
S	3.1	63.3
+20	3.4	63.0

Red. & Plotted Nov. 6 - 1940

66.41

East 1/4 Frankfort = 13' East of ℄

-20	5.2	61.2
S	4.9	61.5
cb.	4.7	61.7
℄	4.3	62.1
cb.	3.9	62.5
N	4.0	62.4
+20	3.4	63.0
East cb.		
-20	4.0	62.4
N	4.5	61.9
+10	5.2	61.2
cb.	5.0	61.4
+15	4.6	61.8
℄	4.9	61.5
cb.	5.4	61.0
S	5.6	60.8
+20	5.3	61.1
East line Frankfort = 0+00		
S-20	5.5	60.9

66.41

S			6.1	60.3	
cb			6.1	60.3	
L			5.7	60.7	
+5			5.7	60.7	
cb			6.1	60.3	
+6			6.3	60.1	
N			5.6	60.8	
+20			5.7	60.7	
	0+50				
-20			7.1	59.3	
N			7.0	59.4	
+11			7.3	59.1	
+12			8.0	58.4	
cb			8.0	58.4	
+8			8.2	58.2	
L			7.9	58.5	
+2			7.6	58.8	
cb			7.3	59.1	
S			7.1	59.3	
+20			6.8	59.6	

66.41

	1+00		-		
-20			7.6	58.8	
S			8.0	58.4	
cb			8.5	57.9	
+10			8.7	57.7	
L			9.4	57.0	
+9			9.8	56.6	
cb			9.1	57.3	
+12			8.9	57.5	
+13			8.4	58.0	
N			8.0	58.4	
+20			8.3	58.1	
	1+50				
-20			9.9	56.5	
N			9.8	56.6	
cb			10.8	55.6	
+11			11.8	54.6	
+12			11.0	55.4	
L			11.6	54.8	
+13			10.2	56.2	

		(64)		
cb.			9.9	56.5
S			10.0	56.4
+20			9.9	56.5
	2+00			
-20			12.4	54.0
S			12.8	53.6
T.P	3.10	56.74	12.77	53.64
+10			3.1	53.6
cb			3.7	53.0
+15			4.3	52.4
℄			3.9	52.8
cb			2.1	54.6
N			1.3	55.4
+20			1.6	55.1
	2+10.99			
-20			1.8	54.9
N			1.8	54.9
cb			2.6	54.1
℄			4.0	52.7
+9			4.7	52.0
cb			4.5	52.2

		56.74	GARDENIA	
+15			4.2	52.5
S			3.5	53.2
+20			3.4	53.3
	2+35			
-20			4.8	51.9
S			6.4	50.3
+2			6.7	50.0
cb.			5.3	51.4
+13			4.5	52.2
℄			4.5	52.2
+13			3.5	53.2
cb.			3.5	53.2
N			2.5	54.2
+20			2.6	54.1
	2+45.55			
-20			3.0	53.7
N			2.8	53.9
+15			4.0	52.7
cb.			3.8	52.9
+15			3.9	52.8
℄			4.6	52.1

	56.74			
℄ +10			6.2	50.5
+16			5.2	51.5
S cb.			5.3	51.4
S			6.3	50.4
+15			7.5	49.2
	2+65			
-20			7.4	49.3
S			6.4	50.3
+10			8.3	48.4
cb.			6.4	50.3
℄			4.8	51.9
+15			4.4	52.3
cb.			4.6	52.1
N			3.5	53.2
+20			3.4	53.3
	2+80.12			
-20			4.0	52.7
N			4.0	52.7
+14			5.2	51.5
cb			5.2	51.5

		56.74			
℄			5.5	51.2	
cb.			6.9	49.8	
+9			8.2	48.5	
+15			9.6	47.1	
S on Conc. Mon			8.59	48.15	
+5			7.4	49.3	
+20			7.9	48.8	
	2+90				
-20			8.4	48.3	
S			9.7	47.0	
+8			9.7	47.0	
cb.			7.8	48.9	
℄			6.0	50.7	
cb			5.5	51.2	
+10			5.3	51.4	
N			4.7	52.0	
+20			4.4	52.3	
	3+09.55 = W.L. Galveston 50' Wide 10' Cbs.				
N on Pipe			5.47	51.27	N W Iron Pipe Gardena + Galv.
+10			5.3	51.4	
cb			6.3	50.4	

56.74

L		7.3	49.4
cb.		9.2	47.5
+9		9.9	46.8
+12		10.8	45.9
S		11.1	45.6
+20		11.2	45.5
	10' East of Edine Galveston = W cb.		
-20		12.5	44.2
S		12.1	44.6
+9		11.6	45.1
+11		10.7	46.0
cb.		10.1	46.6
+10		6.8	49.9
L		7.3	49.4
cb.		6.3	50.4
+9		6.0	50.7
N		6.3	50.4
	L Galveston.		
N		6.0	50.7
+10		6.5	50.2

56.74

cb.		6.5	50.2
L		7.6	49.1
+15		7.7	49.0
cb.		10.5	46.2
+3		7.8	48.9
+15		12.5	44.2
S		12.9	43.8
+20		15.4	41.3
	East cb. Galveston		
-20		16.9	39.8
-13		14.3	42.4
S		13.1	43.6
cb.		10.2	46.5
L		7.8	48.9
cb.		6.6	50.1
N		6.4	50.3
	7' East of East cb.		
N		6.5	50.2
cb.		6.7	50.0
L		7.8	48.9

56.74

cb.		9.8	46.9
S		12.9	44.3
+20		16.0	40.7
East line Galveston.			
-20		15.3	41.4
S		12.4	44.3
cb.		9.7	47.0
L		7.8	48.9
+17		6.6	50.1
cb.		6.9	49.8
+17		6.6	50.1
N		5.3	51.4
50' East of E.L.			
-20		5.0	51.7
N		5.1	51.6
+3		6.2	50.5
cb.		6.6	50.1
+9		6.8	49.9
+12		6.1	50.6
L		6.9	49.8
cb.		8.1	48.6

56.74

S		10.0	46.7	
+20		7.8	48.9	
T.P.	10.31 66.88	0.17	56.57	W.Cb. Frankfort
Chk. BM Copper Disk		2.76	64.12	W.L. Gardena
			64.12 = BM. 000	

Walker.
Bliss
Isbell
10-30-40

CROSS SECTIONS ASHTON ST. 80' Wide 20' cbs.
from Frankfort St.
to Galveston St.

2" Iron Pipe B.M.	8.43	66.64		58.21	N.W. Ashton + Frankfort. = 14' cbs. 13' 1/4s.
	West cb. Line Frankfort.				
N-10.76' = cb. P.C. top cb.			11.00	55 64	
"	Gut on Pav.		11.65	54 99	
N on Pav.			11.71	54 93	
+20' = N cb.			11.67	54 97	
℄			11.80	54 84	
cb.			11.98	54 66	
S			12.35	54 29	
+9.27' = cb. P.C. on Gut			12.10	54 54	
" " " cb.			11.54	55 10	
	8' West of ℄ = East edge existing Paving				
-20 on Pav.			11.31	55.33	
S " "			11.42	55 22	
cb. " "			11.28	55 36	
℄ " "			11.24	55 40	
cb " "			11.14	55 50	
N. on Pav.			11.05	55 59	
+20' " "			11.00	55 64	

INDEXED EFB

6664 ASHTON

	℄ Frankfort		
-20'		10.9	55.7
H		10.9	55.7
cb.		10.9	55.7
℄		11.0	55.6
cb.		11.0	55.6
S		11.2	55.4
+20		11.2	55.4
	E ¼		
-20		10.8	55.8
S		10.7	55.9
cb.		10.4	56.2
℄		10.2	56.4
cb.		10.1	56.5
H		9.7	56.9
+20		9.2	57.4
	E. cb.		
-10		8.3	58.3
H		8.0	58.6
+3		9.3	57.3
cb.		9.2	57.4
+5		9.7	56.9

Red } Profile 11-6-40
Plot } # 2766 C.B.H.

Ashton St.

	66.64		
℄		9.9	56.7
cb		9.8	56.8
S		9.6	57.0
+10		9.7	56.9
0+00 = East Line Frankfort			
-10		8.1	58.5
S		8.4	58.2
+2		8.8	57.8
cb.		8.8	57.8
+3		8.9	57.7
+5		9.4	57.2
℄		9.4	57.2
+16		9.2	57.4
+18		8.4	58.2
cb.		8.6	58.0
+17		8.7	57.9
N		7.7	58.9
+10		7.8	58.8
0+50			
-10		5.5	61.1

Ashton

	66.64		
N		5.7	60.9
+3		6.3	60.3
cb.		5.9	60.7
+2		5.9	60.7
+4		6.4	60.2
℄		6.5	60.1
+15		6.6	60.0
+16		6.1	60.5
cb.		6.0	60.6
+18		5.9	60.7
S		5.1	61.5
+10		5.1	61.5
1+00			
-10		1.4	65.2
S		1.4	65.2
+4		2.5	64.1
cb.		2.8	63.8
+5		2.8	63.8
+6		3.2	63.4
℄		3.1	63.5

		66.64		
+16			3.2	63.4
+18			2.6	64.0
cb.			2.6	64.0
+17			2.0	64.6
N			2.3	64.3
+10			2.3	64.3
T.P	12.40	78.89	0.15	66.49
	1+45			
-10			11.0	67.9
N			10.8	68.1
+3			11.6	67.3
cb.			11.3	67.6
+3			11.3	67.6
+5			12.1	66.8
do.			12.4	66.5
+13			12.4	66.5
+15			11.7	67.2
cb.			11.7	67.2
+17			12.1	66.8
S			11.0	67.9
+10			11.0	67.9

		78.89		
	2+00			
-10			7.1	71.8
S			7.1	71.8
+2			7.1	71.8
+5			8.0	70.9
cb.			7.9	71.0
+5			7.7	71.2
+7			8.0	70.9
do.			8.0	70.9
+14			8.0	70.9
+16			7.5	71.4
cb.			7.5	71.4
+16			6.9	72.0
+19			5.6	73.3
N			5.6	73.3
+10			5.6	73.3
	2+30			
-10			2.0	76.9
N			2.0	76.9
+3			3.5	75.4

ASHTON St.

	78.89		
cb.		3.7	75.2
+5		3.6	75.3
+8		4.3	74.6
℄		4.0	74.9
+13		4.0	74.9
+15		3.5	75.4
cb.		3.4	75.5
+18		3.5	75.4
S		2.2	76.7
+10		2.5	76.4
	2+80		
-10		1.7	77.2
S-2		0.3	78.6
S		1.5	77.4
cb.		1.4	77.5
+5		1.5	77.4
+6		1.8	77.1
℄		1.6	77.3
+12		1.5	77.4
+14		0.9	78.0
cb.		0.7	78.2

ASHTON

	78.89		
+17		0.7	78.2
T.P.	10.49	89.19	0.19	78.70
N		9.9	79.2
+10		9.9	79.2
	3+09.59		
N onto 6" Iron Pipe		7.24	81.95
+3		8.6	80.6
cb.		8.9	80.3
+6		8.8	80.4
+8		9.4	79.8
℄		9.7	79.5
+5		10.1	79.1
+15		10.1	79.1
cb.		9.8	79.4
+15		10.0	79.2
S		9.6	79.6

N.W. Cor Ashton & Galveston
Elev. Iron Pipe 7.24 81.95

for chk on Above pipe see P34

Walker
Bliss
Isbell
10-30-40

Cross Section Orten St.

80' Wide
20' cbs.

from Frankfort to Galveston

Frankfort
57.05 ± Orten

Copper Disk in Lead on West cb.
BM. 11.56 68.61

W cb. Frankfort (14)

N-10 on cb.	11.74	56.87
" " Gut Paving.	12.32	56.29
N " " "	12.27	56.34 ✓
N on cb.	11.68	56.93 ✓
+20 = N cb. on cb.	11.56	57.05
" on Gut Pav.	12.15	56.46
℄ Orten on cb.	11.54	57.07 ✓
℄ " " Gut Pav.	12.18	56.43 ✓
S cb. on cb.	11.43	57.18
" " Gut. Pav.	12.03	56.58
S. on cb.	11.48	57.13 ✓
" "Gut. on Pav	12.92	55.69 ✓
+20' on cb.	11.31	57.30
" " Gut.	11.95	56.66

8' W of ℄ = East edge exist. paving.

-20 on Pav	11.36	57.25
S " "	11.37	57.24 ✓

Red-Plot 11-8-40 C.B.H.

68.61

ORTEN

S cb. on Pav.	11.43	57.18
℄ " "	11.48	57.13 ✓
N cb. " "	11.60	57.61
N Line " "	11.69	56.92 ✓
+10 " "	11.77	56.84

℄ Frankfort

-10	12.1	565
N	12.1	565
cb.	12.0	566
℄	11.8	568
cb	11.6	570
S	11.5	571
+10	11.4	572

10' W of E cb.

S-10	9.9	587
S	10.0	586
cb.	10.1	585
℄	10.3	583
cb.	10.7	579
N	10.9	577
+10	10.7	579

68.61

East cb.

N-10	10.0	586
N	10.0	586
cb.	9.7	589
L	9.1	595
cb.	9.2	594
S	8.8	598
+10	9.1	595
0+00 = E.L. Frankfort		
-10	8.4	602
S	8.4	602
cb.	8.5	601
L	8.6	600
cb	9.1	595
N	9.4	592
+10	9.4	592
0+50		
-10	7.9	613
N	7.6	610
cb.	7.1	615

68.61

L	6.8	618
cb	6.7	619
+12	6.5	621
S	7.1	615
+10	6.3	623
1+00		
S-10	4.4	642
S	4.3	643
S cb.	4.4	642
L	4.7	639
+cb.	4.8	638
N	4.8	638
+10	4.8	638
1+50		
-10	0.9	677
N	0.9	677
cb.	1.0	676
L	1.0	676
cb.	1.4	672
S	1.4	672
+10	1.5	671

		68.61		ORTEN ST.
T.P.	1248	80.18	0.91	67.70
	2+00			
-20			10.3	69.9
S			9.7	70.5
cb.			9.1	71.1
℄			8.8	71.4
cb.			8.8	71.4
N			8.1	72.1
+10			7.6	73.6
	2+50			
-10			2.8	77.4
N			3.3	76.9
cb.			4.0	76.2
℄			5.0	75.2
cb.			6.0	74.2
S			7.0	73.2
+20			7.5	72.7
	3+00			
-20			4.4	75.8
S			3.9	76.3
cb.			2.5	77.7

		80.18		ORTEN	
℄			1.6	78.6	
T.P.	9.58	86.96	2.80	77.38	
N cb.			6.9	80.1	
N			5.6	81.4	
	3+09.62 = ℄ Galveston				
N			4.6	82.4	
cb.			6.1	80.9	
℄			7.2	79.8	
cb.			8.2	78.8	
S			9.6	77.4	℄ Orten
Elev. 3/4 Iron Pipe			2.74	84.22	E/L Galveston
	~~5 W of ℄ cb.~~			Checked p-38 OK.	
~~S -10~~			~~9.0~~		
~~S~~			~~8.8~~		
~~+15~~			~~8.5~~		
~~cb.~~			~~7.2~~		
~~+5~~			~~8.0~~		
~~+8~~			~~8.8~~		
~~℄~~			~~9.0~~		
~~cb.~~			~~9.5~~		
~~N~~			~~9.9~~		
~~+10~~			~~10.1~~		

Walker
Bliss
Isbell 10-30-40

CROSS SECTION - NAPIER St. 80' Wide
from Frankfort to Galveston 20' cbs.

INDEXED
EFB

NAPIER St.

	12.24	66.98		54.74
	West cb. Frankfort			
N-6.76 = P.C. cb. on cb.			11.83	55.15
" " " " Gut paving.			12.41	54.57
N on Gut paving.			12.30	54.68
N cb. on "			11.99	54.99
℄ " "			11.78	55.20
S cb " "			11.80	55.18
S.L. " "			12.08	54.90
+13.96 = P.C. cb. on cb.			11.45	55.53
" " " " Paving.			11.97	55.01
	8' West of ℄ = East edge Paving			
S-20 on Paving.			11.40	55.58
S " "			11.41	55.57
cb. " "			11.37	55.61
℄ " "			11.29	55.69
N cb. " "			11.46	55.52
N.L. " "			11.71	55.27
+10 " "			11.94	55.04
	℄ Frankfort			

		66.98		
-10			11.3	55.7
N			11.2	55.8
cb.			10.9	56.1
℄			10.6	56.4
S cb.			10.6	56.4
S			10.7	56.3
+20			10.6	56.4
	East cb. -5'			
-10			9.0	58.0
S			8.3	58.7
+15			8.5	58.5
cb.			7.2	58.8
+5			8.0	59.0
℄			9.0	58.0
cb.			9.5	57.5
N			9.9	57.8
+10			10.1	56.9
	East cb. Frankfort			
-10			9.3	57.7
N			9.0	58.0

Red Profile 11-6-40 C.B.H.
Plot # 2766

N cb.	9.2	57.8
℄	8.7	58.3
+13	8.5	58.5
+16	7.2	59.8
cb.	7.1	59.9
S	6.6	60.4
+10	6.4	60.6

0 − 12' = ℄ Fan Palm on N 13' in st.

0+00 = E.L. Frankfort

-10	5.8	61.2
S	6.0	61.0
+12	5.9	61.1
cb.	7.1	59.9
+5	7.5	59.5
℄	7.9	59.1
cb.	8.0	59.0
N	8.7	58.3
+10	8.7	58.3

0+15 = ℄ Date Palm 12.5' in st. on N

0+24 = ℄ Pepper tree on 12' in st. 0.6 in dia.

0+60 = ℄ pepper tree on N 12.5' in st. 6" dia

+88 = 2' Palm on N 12.5' in st.

0+50

-10	4.9	62.1
N	4.5	62.5
cb.	3.7	63.3
℄	3.9	63.1
+14	3.6	63.4
S cb.	2.9	64.1
+8	1.8	65.2
S	2.2	64.8
+10	2.0	65.0
T.P.	13.06	79.89	0.15	66.83

1+00

-10	9.8	70.1
S	10.1	69.8
+12	9.8	70.1
cb.	10.5	68.6
℄	11.4	68.5
cb.	11.6	68.3
N	12.3	67.6
+10	12.7	67.2

79.89

1+20 = ℄ Palm on N 12.5' in St. 2' dia.

1+45 = " " " " 12.9' " " 2.5' "

1+45

-10		9.0	70.9
N		8.3	71.6
+15		7.7	72.2
cb.		7.6	72.3
+11		7.9	72.0
℄		7.4	72.5
+13		7.1	72.8
cb.		6.2	73.7
+6		5.4	74.5
S		5.9	74.0
+10		5.8	74.1

1+91 = ℄ Dato Palm on N. 12.5' in St. 2' dia.

2+00

-10		0.6	79.3
S		0.9	79.0
cb.		0.6	79.3
+7		1.2	78.7

79.89

℄		1.4	78.5
cb.		1.6	78.3
N		1.9	78.0
+10		2.0	77.9

2+13.5 = ℄ Date Palm on N 12.5' in St. 2' dia.

+26 = ℄ Pepper tree " " 12.5' " " 6" "

+36 = ℄ Date Palm on N 12.5' in St. 2' dia.

TP	13.03	92.74	0.18	79.71

2+22

-10		11.7	810
N		11.7	810
+13		11.0	817
cb.		10.5	822
+6		10.7	820
℄		11.5	812
cb.		11.0	817
S		11.6	811
+10		11.9	808

2+50

-10		8.4	843
S		8.2	845

NAPIER St.

	92.74		
S. cb.		7.5	85 2
ℒ		7.7	85 0
cb.		7.1	85 6
+7		7.0	85 7
N		7.5	85 2
+10		7.5	85 2

2+59 = ℒ Date Palm on N. 12.5' in st. 2' dia.

2+69.7 = W. L. Galveston on North

N.	5.9	86 8 5.19	
cb.	5.4	87 3	
ℒ	5.3	87 4	
cb.	5.2	87 5	
S	5.8	86 9	
Elev. 2" Iron Pipe	5.59	87.15	N.W. Cor. Napier + Galveston
Checked P-43		87.14 = P-43 0.01	

Walker
Bliss
Isbell

10-30-40

CROSS SECTION MILTON St.
From Frankfort To Galveston St.
14' cbs. 13"/48.
80' Wide

B.M.	7.18	60.85		53.67	Con. Mon. & Milton & Frankfort.
	W cb. Frankfort.				
S-20 on cb P.C.			8.40	52.45	
" " " Paving.			8.99	51.86	
S on "			9.08	51.77	
+12.5' = N edge "			8.69	52.16	
cb.			8.7	52.2	
1/4			8.1	52.8	
℄			7.4	53.5	
+3			6.4	54.5	
+8			6.7	54.2	
1/4			9.7	51.2	
+5 in channel			11.7	49.2	
cb. " "			11.6	49.3	
+5 " "			11.5	49.4	
N			6.1	54.8	
+10			6.1	54.8	
	8' West of ℄ Frankfort = ℄ - 8' = East edge existing Paving				
-10			6.4	54.5	
-5'			6.4	54.5	

Red. Plot. 11-9-40
CB.H.
Profile 2317

INDEXED
EPB

60.85

N				9.6	51.3
+5' in channel				12.2	48.7
+10 " "				13.1	47.8
cb. " "				10.5	50.4
+9				6.5	54.4
1/4				6.4	54.5
℄				7.1	53.8
1/4				7.6	52.3
cb.				8.2	52.7
+15' on North edge Pav.				8.21	52.64
S on Pav.				8.33	52.52
S+20 " "				8.40	52.45
	℄ Frankfort				
S-10				8.3	52.6
S				8.2	52.7
cb.				7.8	53.1
1/4				7.4	53.5
℄				6.9	54.0
1/4				6.4	54.5
+12				6.3	54.6
cb.				10.7	50.2

60.85 Milton St.

cb+8' in channel	12.5	48.4
N " "	10.4	50.5
+10	10.4	50.5
+17 = top Bank	5.2	55.7
E ¼ Frankfort		
-25 = top Bank	5.2	55.7
-22	9.0	51.9
-5'	10.0	50.9
N in channel	12.4	48.5
+5 " "	12.1	48.8
+11 on Bank	6.2	54.7
cb.	6.2	54.7
¼	6.2	54.7
℄	6.6	54.3
¼	7.1	53.8
cb.	7.4	53.5
S	7.8	53.1
+10	7.8	53.1
East cb.		
-10	7.2	53.7
S	7.2	53.7

60.85

cb.	7.2	53.7
¼	6.9	54.0
℄	6.5	54.4
¼	6.4	54.5
cb.	5.7	55.2
N	5.2	55.7
+10	5.2	55.7
+12 in channel	12.2	48.7
+23 " "	11.3	49.6
+25 on Bank	5.6	55.3
+40	5.0	55.9
0+00 = E.L. Frankfort		
-35	5.0	55.9
-28	5.4	55.5
-24 = Hodge channel	10.4	50.5
-15' = " "	11.8	49.1
-13	5.6	55.3
N	5.7	55.2
cb.	5.9	55.0
¼	6.0	54.9
℄	6.4	54.5

60.85 Milton

1/a		6.7	54.2
cb.		6.5	54.4
S		7.1	53.8
+10		7.2	53.7

0-11 = ℄ Palm tree on South, 10' in St. 2.5' dia

0+01 = ℄ 18" Pepper tree on South 12' in St.

+13 = ℄ 36" Palm on South 9.5' in St.

+34 = ℄ 24" " " " 10' " "

+47 = ℄ 12" Pepper tree " 11.5' in St.

0+58 = ℄ 24" Palm on South 9.5' " "

0+66 = ℄ 12" Pepper tree " 14' in St

0+82 = ℄ 36" Date Palm " 10 in St

0+95 = ℄ 24" " " " 10' " "

1+08 = ℄ 18" " " " 10' " "

+15 = ℄ 12" " " " 10' " "

+30 = ℄ 12" Pepper " 15 " "

+30 = ℄ 24" Palm " 10' " "

+55 = ℄ 24" Date Palm " 9.5 in St

+69 = 18" Pepper tree on South 14' " "

+72 = ℄ 10" " " " " 15 " "

2+06 = ℄ 24" Palm on South 11 " " 24" dia

+11 = ℄ 6" Pepper " " 14' in St. 6" dia

+17 = ℄ " " " 11' in St. 12" dia

2+30 = ℄ Palm on South 11' in St 24" dia

+42 = ℄ Pepper " " 15.5' in St 8" dia.

+55 = ℄ Palm " " 10.5' in St 30" dia

+65 = ℄ Pepper " " 14' in St. 9" dia

+80 = ℄ " " " 15' in St. 9" dia

+84 = ℄ Palm " " 10' in St. 24" dia

+88 = ℄ Pepper " " 5.5' in St. 5" dia

Trees on North

0+15	℄ Euc Tree	8' in St.	3' dia
0+19	" " "	8 " "	" "
0+56	" " "	12.5 " "	2' dia
0+58.5	" " "	7.5 " "	3' "
0+66	" " "	11' " "	16" dia
+75	" " "	8' " "	24" "
+96	" " "	8 " "	1' dia
1+04	" " "	8' " "	28" dia
+16	" " "	8' " "	24" "
1+86	℄ " "	8' " "	24" "
+80	℄ " "	16 " "	5' dia = cluster.
+95.5	" " "	9' " "	16" "
2+08	" " "	8' " "	24"

60.85 Milton St.

2+16	℄ Euc Tree on N		12' in St.		} Average 18"
+20	" " " "		8.5 " "		
+28	" " " "		8.5 " "		
+39	" " " "		12 " "		cluster
+46	" " " "		9 " "		}
+55	" " " "		12 " "		cluster
+59	" " " "		8 " "		} Av 18" dia
+69	" " " "		9 " "		
+75	" " " "		9 " "		} Milton + Frankfort
T.P.	8.06	61.73	7.18	53.67	on ℄ xtion
	0+50				
-10			5.6	55.1	
S			6.2	55.5	
cb.			6.6	55.1	
1/4			6.7	55.0	
℄			6.6	55.1	
+5			5.9	55.8	
1/4			6.3	55.4	
cb.			5.4	56.3	
N			5.2	56.5	
+7			6.3	55.4	

61.73

N+10	in channel	12.2	49.5
+15	" "	11.8	49.9
+19	on Bank	5.5	56.2
+30	" "	5.5	56.2
	0+75		
-30		4.5	57.2
-21		4.7	57.0
-11	in channel	11.3	50.4
-8	" "	11.3	50.4
-2		5.2	56.5
N		5.2	56.5
+10		4.4	57.3
cb.		4.7	57.0
1/4		5.4	56.3
℄		5.6	56.1
1/4		6.0	55.7
cb.		5.9	55.8
S		5.9	55.8
+10		5.6	56.1
	1+00		
-10		5.2	56.5

Milton St.

61.73

S	5.4	56.3
cb.	5.8	55.9
¼	5.9	55.8
+5	5.3	56.4
℄	5.3	56.4
¼	5.0	56.7
cb.	4.4	57.3
N	4.3	57.4
+9	4.9	56.8
+16 in channel	10.0	51.7
+20	10.1	51.6
+27 = N Bank	4.2	57.5
+35	4.0	57.7
1+50		
-45' = S edge Channel	4.7	57.0 on Bank.
N.	1.8	59.9
cb.	2.8	58.9
¼	3.3	58.4
+5	2.8	58.9
℄	2.9	58.8

61.73

℄ +6'			2.7	59.0
¼			3.5	58.2
cb.			4.1	57.6
S			4.3	57.4
+10			4.0	57.7
TP	12.00	73.53	0.20	61.53.
	2+00			
-10			9.9	63.6
S			9.5	64.0
cb.			9.9	63.6
+8			11.3	62.2
¼			11.3	62.2
℄			11.4	62.1
¼			11.1	62.4
cb.			10.7	62.8
+8			10.1	63.4
N			9.3	64.2
+35			11.5	62.0
	2+25			
-30			9.3	64.2
N			7.5	65.7

73.53

N+4		7.7	65.8
cb.		8.9	64.6
¼		9.2	64.3
℄		8.6	64.9
¼		7.7	65.8
cb.		5.0	68.5
S		3.6	69.9
+10		3.0	70.5
	2+50		
-10		1.5	72.0
S		1.5	72.0
cb.		1.0	72.5
+8		2.2	71.3
¼		4.1	69.4
℄		5.3	68.2
¼		6.3	67.2
cb.		6.6	66.9
+7		6.4	67.1
N		5.9	67.6
+25		6.6	66.9
	2+69.62 = W.L. Galveston 80' wide 20' cbs.		

73.53

Milton St.

N-25			4.6	68.9
N			4.0	69.5
cb.			4.1	69.4
¼			3.5	70.0
+7			2.0	71.5
℄			1.8	71.7
¼			1.2	72.3
+3			1.4	72.1
T.P.	11.86	85.15	0.24	73.29
+6			11.3	73.9
cb.			11.3	73.9
S			10.9	74.3
	W cb. Galveston = 20' East of W.L.			
S			8.5	76.7
cb.			9.5	75.7
¼			10.9	74.3
℄			10.8	74.4
¼			12.3	72.9
cb.			13.3	71.9
N			13.5	71.7
+20			14.0	71.2

L Galveston

-20	12.1	73.1
N	11.2	74.0
cb.	10.8	74.4
¼	10.4	74.8
L	9.1	76.1
¼	8.9	76.3
+3	8.8	76.4
cb.	7.2	78.0
S	7.1	78.1

E cb.

S	4.8	80.4
cb.	6.0	79.2
+5	6.3	78.9
+9	7.2	78.0
¼	7.0	78.2
L	7.2	78.0
¼	8.3	76.9
cb.	9.7	76.0
N	9.7	75.5

N+20	9.9	75.3

0+00 = East Line Galveston

-20'	7.9	77.3
N	7.6	77.6
cb.	6.5	78.7
¼	6.3	78.9
L	5.2	80.0
¼	5.0	80.2
+4	5.3	79.9
+7	4.0	81.2
cb.	3.3	81.9
S	2.2	83.0

0+25

-10	+1.2	86.4
S	+0.4	85.6
cb.	0.6	84.6
¼	3.3	81.9
L	2.8	82.4
¼	3.6	81.6
cb.	4.0	81.2
N	4.1	81.1
+20	4.6	80.6

		85.15			
	0+50				
-20			1.2	84.0	
N			1.0	84.2	
cb			0.2	85.0	
TP	12.53	97.50	0.18	84.97	
¼			12.3	85.2	
℄			11.7	85.8	
¼			11.5	86.0	
+5			11.6	85.9	
+8			10.5	87.0	
cb.			10.0	87.5	
S			9.0	88.5	
+10			8.1	89.4	
	0+75				
-10			3.8	93.7	
S			5.1	92.4	
cb.			5.5	92.0	
+5			5.9	91.6	
+10			7.8	89.7	
¼			7.5	90.0	

		97.50		M. Horn	
℄			7.6	89.9	
¼			8.6	88.9	
cb.			9.8	87.7	
N			10.3	87.2	
+20			10.6	86.9	
	1+00				
-20			8.1	89.4	
N			6.8	90.7	
cb.			5.5	92.0	
¼			4.1	93.4	
+8			2.8	94.7	
℄			2.9	94.6	
¼			2.9	94.6	
+6			2.9	94.6	
+9			1.8	95.7	
cb.			1.5	96.0	
TP	12.01	108.87	0.64	96.86	
S			11.1	97.8	
+10			10.4	98.5	
	1+25				
-10			6.2	102.7	
S			7.3	101.6	

		108.87					108.87		M. Hon.	
S cb.			8.6	100.3	cb.			5.4	103.5	
+5			9.0	99.9	S			4.4	104.5	
+10			11.1	97.8	+10			3.0	105.9	
¼			10.7	98.2		2+00				
+10			11.1	97.8	-10			+4.0	112.9	
+12			10.2	98.7	S			+2.7	111.6	
℄			10.1	98.8	cb.			+1.4	110.3	
+8			10.6	98.3	¼			0.8	108.1	
¼			12.1	96.8	℄			0.7	108.2	
cb.			13.2	95.7	¼			1.9	107.0	
N			14.2	94.7	cb			2.8	106.1	
+20			15.0	93.9	N			4.0	104.9	
	1+50				+20			4.8	104.1	
-20			11.7	97.2	TP	0.28	96.53	12.62	96.25	
N			10.3	98.6	TP	0.23	84.21	12.55	83.98	
cb			9.2	99.7	℄ Mon. Milton & Gadesden			8.60	75.61	Chk. P-47 See P-47
¼			8.6	100.3	TP	0.59	71.93	12.87	71.34	
℄			6.5	102.4	TP	1.83	61.11	12.65	59.28	
¼			7.2	101.7	Chk. ℄ Mon. Milton + Frankfort			7.42	53.69	
+4			7.2	101.7					53.67 BM	
+7			5.1	103.2					0.02 Error	

Walker
Bliss
Abell
10-31-40

Cross Section GALVESTON St. From Gardena St. to Milton St.

50' Wide } to Shine. Napier St.
10' Cbs }

80' Wide } From St. Napier St.
20' Cbs } to St. Milton St.

BM	11.27	62.54	51.27	
	0+00 = N.L. Gardena St.			
W		11.3	51.2 ✓	
cb.		12.0	50.5	
L.		11.9	50.6 ✓	
cb.		12.2	50.3	
+6		12.0	50.5	
E.		11.3	51.2 ✓	
	0+50			
-10		9.9	52.6 ✓	
E		9.6	52.9 ✓	
+3		10.6	51.9	
cb.		10.7	51.8	
L		10.4	52.1 ✓	
cb.		10.2	52.3	
+4		10.3	52.2	
+6		9.0	53.5	
W		9.1	53.4 ✓	
+10		9.0	53.5 ✓	

INDEXED
EFB 6254

Galveston

	1+00		
-10	7.4		55.1 ✓
W	7.4		55.1 ✓
+7	7.7		54.8
cb.	8.5		54.0
L	8.8		53.7 ✓
cb.	8.8		53.7
+8	8.7		53.8
E	8.0		54.5 ✓
+10	8.3		54.2 ✓
	1+50		
-10	6.2		56.3 ✓
E	6.3		56.2 ✓
cb.	6.3		56.2
L	6.4		56.1 ✓
cb.	6.4		56.1
+8	5.9		56.6
W	5.5		57.0 ✓
+10	5.0		57.5 ✓

	62.54			
	2+00			
-10		2.2	60.3 ✓	
W		2.8	59.7 ✓	
cb.		3.2	59.3	
℄		2.9	59.6 ✓	
cb.		2.6	59.9	
E		3.4	59.1 ✓	
+10		3.9	58.6 ✓	
TD.	13.11	74.84	0.81	61.73
2+07 = ℄ 24" Pepper tree on W.			on Line ✓	
	2+50			
-10		13.5	61.3 ✓	
-5		13.3	61.5 ✓	
E		11.3	63.5 ✓	
cb.		11.5	63.3	
℄		11.8	63.0 ✓	
cb.		11.8	63.0	
W		11.4	63.4 ✓	
+10		10.4	64.4 ✓	
	3+00			
-10		5.8	69.0 ✓	
W		6.2	68.6 ✓	

	74.84	Galveston.		
W+2		7.3	67.5	
cb.		7.5	67.3	
℄		7.9	66.9 ✓	
cb.		7.8	67.0	
+8		7.7	67.1	
E		8.5	66.3 ✓	
+4		9.6	65.2 ✓	
+10		9.6	65.2 ✓	
	3+25			
-10		7.5	67.3 ✓	
-2		7.3	67.5 ✓	
E		6.6	68.2 ✓	
+4		5.6	69.2	
cb.		5.7	69.1	
℄		6.1	68.7 ✓	
+13		6.0	68.8	
cb.		5.4	69.4	
+9		5.4	69.4	
W		4.2	70.6 ✓	
+10		3.6	71.2 ✓	

7484

	3+50			
-10			2.7	72.1 ✓
W			3.0	71.8 ✓
cb.			3.5	71.3
+2			4.2	70.6
L			3.8	71.0 ✓
cb.			3.5	71.3
E			4.0	70.8 ✓
+10			5.2	69.6 ✓
	3+75			
-10			3.4	71.4 ✓
E			1.9	72.9 ✓
cb.			1.9	72.9
L			2.1	72.7 ✓
+11			1.9	72.9
cb.			1.4	73.4
+5			1.8	73.0
W			1.1	73.7 ✓
+10			1.1	73.7 ✓
TP	12.92	87.21	0.49	74.35
	4+00			
-10			12.6	74.7 ✓

8727 Galveston

W	12.2	75.1 ✓	
cb.	12.3	75.0	
+3	12.9	74.4	
L	12.9	74.4 ✓	
cb.	12.8	74.5	
+5	12.7	74.6	
E	13.3	74.0 ✓	
+10	15.1	72.2 ✓	
	4+06		
-10	15.1	72.2 ✓	
E	13.1	74.2 ✓	
+5	12.2	75.1	
cb.	12.2	75.1	
L	12.5	74.8 ✓	
+11	12.5	74.8	
cb.	12.0	75.3	
+8	11.9	75.4	
W	10.9	76.4 ✓	
+10	11.3	76.0 ✓	
	4+50		
-10	9.6	77.7 ✓	
W	9.7	78.1 ✓	

W+2		10.2	77.1
cb.		10.1	77.2
+2		10.4	76.9
℄		10.4	76.9 ✓
cb.		10.6	76.7
+5		10.5	76.8
E.		11.6	76.7 ✓
+10		13.2	74.1 ✓
	5+00		
-10		10.2	77.1 ✓
E		9.2	78.1 ✓
+4		8.5	78.8
cb.		8.6	78.7
℄		8.8	78.5 ✓
+12		8.9	78.4
cb.		8.5	78.8
+7		8.6	78.7
W		7.8	79.5 ✓
+10		8.6	78.7 ✓
	5+29.43 = S.L. ASHTON St.		80' wide 20 cbs.
W		7.7	79.6 ✓

cb.		7.9	79.4
℄		7.8	79.5 ✓
cb.		7.4	79.9
E.		7.1	80.2 ✓
+10		7.9	79.3 ✓
	S cb. Ashton		
-10		6.5	80.8 ✓
E		6.4	80.9 ✓
cb.		6.3	81.0
℄		6.8	80.5 ✓
+5		7.2	80.1
cb.		7.6	79.7
W		7.9	79.4 ✓
	℄ Ashton		
W		7.7	79.6 ✓
cb.		7.4	79.9
℄		6.8	80.5 ✓
cb.		5.9	81.4
E.		5.4	81.9 ✓
+10		5.6	81.7 ✓

8727

11' North of ℄ Ashton

-10		5.0	82.3 ✓
E		4.8	82.5 ✓
cb.		4.9	82.4
+10		5.3	82.0
℄		6.0	81.3 ✓
cb.		7.0	80.3
W		7.5	79.8 ✓

14' N of ℄ of Ashton

W		7.0	80.3 ✓
cb.		6.4	80.9
℄		5.5	81.8 ✓
cb.		4.8	82.5
E		4.8	82.5 ✓
+10		4.8	82.5 ✓

N cb.

-10		4.5	82.8 ✓
E		4.5	82.8 ✓
cb.		4.9	82.5
℄		5.3	82.0 ✓

8727 Galveston

W cb.		6.4	80.9
W		7.0	80.3 ✓

N cb +17'

W		6.4	80.9 ✓
+6		6.1	81.2
+8		5.1	82.2
cb.		5.2	82.1
℄		4.7	82.6 ✓
cb.		3.9	83.4
E		3.7	83.6 ✓
+10		3.5	83.8 ✓

0 + 00 = N.℄ Ashton

-10		3.3	84.0 ✓
E		3.5	83.8 ✓
cb.		3.6	83.7
℄		4.5	82.8 ✓
cb.		5.2	82.1
W		5.3	82.0 ✓
chk. N.W. Iron Pipe	Ashton to Galveston	5.31	81.96
	See P- 13		81.95 = Pipe 0.01

	87.27			
	0+50			
-10		6.0	81.3 ✓	
W		4.5	82.8 ✓	
cb.		3.7	83.6	
L		2.8	84.5 ✓	
cb.		1.5	85.8	
E		1.4	85.9 ✓	
+10		0.8	86.5 ✓	
T.P.	7.98 92.71	2.54	84.73	
	1+00			
-10		4.5	88.2 ✓	
E		5.3	87.4 ✓	
cb.		5.9	86.8	
L		7.1	85.6 ✓	
cb.		7.9	84.8	
+8		7.8	84.9	
W		8.4	84.3 ✓	
+10		9.5	83.2 ✓	
	1+30			
-10		9.7	83.0 ✓	
W		8.6	84.1 ✓	

	92.71	Galveston		
+2		8.3	84.4	
cb.		8.2	84.5	
L		6.5	86.2 ✓	
cb.		5.2	87.5	
E		5.1	87.6 ✓	
+10		4.3	88.4 ✓	
	1+50			
-10		4.0	88.7 ✓	
E		5.0	87.7 ✓	
cb.		5.8	86.9	
L		7.4	85.3 ✓	
cb.		8.4	84.3	
W		8.8	83.9 ✓	
+10		9.6	83.1 ✓	
	2+00			
-10		10.9	81.8 ✓	
W		9.8	82.9 ✓	
cb.		9.4	83.3	
L		8.5	84.2 ✓	
cb.		6.9	85.8	
E		6.2	86.5 ✓	
+10		5.3	87.4 ✓	

	2+50		
-10		6.8	859 ✓
E		7.8	849 ✓
cb.		8.8	839
L		10.2	825 ✓
cb.		11.0	817
W		11.1	816 ✓
+10		12.6	801 ✓
	3+00		
-10		14.0	787 ✓
W		12.4	803 ✓
+2		11.7	810
cb.		11.8	809
L		10.7	820 ✓
cb.		9.4	833
E		8.8	839 ✓
+10		7.9	848 ✓
	3+50		
-10		8.7	840 ✓
E		9.5	832 ✓

cb.		9.7	830
+5		10.1	826
L		11.3	814 ✓
cb.		12.4	803
+8		12.4	803
W		12.9	798 ✓
+10		14.3	784 ✓
	4+00		
-10		14.3	784 ✓
W		13.4	793 ✓
cb.		12.9	798
L		12.0	807 ✓
cb.		11.1	816
E		10.4	823 ✓
+10		9.6	831 ✓
	4+30		
-10		10.3	824 ✓
E		10.7	820 ✓
cb.		10.7	820
L		11.9	808 ✓
cb.		12.5	802

		9271		
W			12.7	80.0 ✓
+10			13.7	79.0 ✓
	4+50			
-10			13.6	79.1 ✓
W			12.6	80.1 ✓
cb.			12.7	80.0
℄			12.9	79.8 ✓
cb.			11.9	80.8
E			11.5	81.2 ✓
+10			11.0	81.7 ✓
TP	9.85	90.58	11.98	80.73
	4+75			
-10			10.6	80.0 ✓
E			11.5	79.1 ✓
cb.			12.1	78.5
℄			12.8	77.8 ✓
cb.			12.8	77.8
W			12.3	78.3 ✓
+10			12.7	77.9 ✓
	5+00			
-10			14.5	76.1 ✓
W			13.7	76.9 ✓

		9058	Galveston	31
W.cb.			13.3	77.3
℄			13.1	77.5 ✓
E cb.			12.8	77.8
E			12.7	77.8 ✓
+10			12.4	78.2 ✓
	5+50			
-10			12.0	78.6 ✓
E			12.6	78.0 ✓
cb.			13.1	78.5
℄			13.5	77.1 ✓
cb.			13.6	77.0
W			13.8	76.8 ✓
+10			15.6	75.0 ✓
	5+75			
-10			15.6	75.0 ✓
W			14.2	76.4 ✓
cb.			13.7	76.9
℄			13.3	77.3 ✓
cb.			12.8	77.8
E			12.2	78.4 ✓
+10			11.7	78.9 ✓

6+00 = S.L. Orten 80' wide 20' cbs.

90.58

-10	9.6	810 ✓
E	9.9	807. ✓
+7	10.2	804
+8	11.1	795
cb.	11.1	795
+10	11.1	795
℄	11.5	791 ✓
cb.	12.8	778
W.	13.3	773 ✓

South cb = 20' north of S.L.

W	11.8	788 ✓
cb.	11.1	795
℄	10.3	803 ✓
+10	9.5	811
cb.	9.9	807
+2	10.0	806
+3	8.4	822
E.	8.1	825 ✓
+10	7.4	832 ✓

℄ Orten

90.58 Galveston

-10	5.5	851 ✓
E.	6.4	842 ✓
cbk ℄ Iron Pipe	6.36	84.22 ✓ Cbks. See p-16
+7	7.1	835
+8	8.1	825
cb.	8.1	825
+7	8.0	826
℄	8.9	817 ✓
cb.	10.0	806
W	10.8	798 ✓

N cb.

W	9.8	808 ✓
cb.	8.8	818
℄	7.3	833 ✓
+7	6.5	841
cb.	6.6	840
+2	6.6	840
+3	5.4	852
E	4.7	859 ✓
+10	3.5	871 ✓

0+00 = N.L. Orten on West.

	90.58			
-16		2.0	88.6 ✓	
E		3.1	87.5 ✓	
+7		3.8	86.8	
+8		4.8	85.8	
cb.		4.8	85.8	
+9		4.8	85.8	
L		5.5	85.1 ✓	
cb.		6.9	83.7	
W		8.2	82.4 ✓	
	0+30			
-10		7.2	83.4 ✓	
W		6.2	84.4 ✓	
cb.		5.2	85.4	
+5		4.5	86.1	
+7		3.7	86.9	
E		3.2	87.4 ✓	
+4		2.6	88.0	
cb.		2.5	88.1	
+2		2.5	88.1	
+3		1.6	89.0	

		90.58	Galveston	
E			0.9	89.7 ✓
+10			+0.3	90.9 ✓
TP	12.63	102.19	1.02	89.56
	0+55			
-10			8.6	93.6 ✓
E			2.5	92.7 ✓
+6			10.2	92.0
+7			12.0	90.2
cb.			12.0	90.2
+10			12.2	90.0
L			12.8.	89.4 ✓
+7			13.4	88.8
+9			14.5	87.7
cb.			15.0	87.2
W			15.8	86.4 ✓
+10			16.6	85.6 ✓
	0+75			
-10			15.9	86.3 ✓
W			14.3	87.9 ✓
+4			13.4	88.8
cb.			13.2	89.0
+6			12.9	89.3

C6+7	12.4	89.8	
L	11.6	90.6	✓
C6.	11.1	91.1	
+3	11.0	91.2	
+4	9.7	92.5	
E	8.9	93.3	✓
+10	7.5	94.7	✓
1+00			
-10	6.8	95.4	
E.	8.1	94.1	✓
+6	8.5	93.7	
+7	9.8	92.4	
C6.	9.8	92.4	
L	10.2	92.0	✓
+8	10.6	91.6	
+10	11.9	90.3	
C6.	12.4	89.8	
W	13.5	88.7	✓
+10	14.9	87.3	✓
1+30			
-10	12.8	89.4	✓

W	11.3	90.9	✓
+3	10.6	91.6	
C6.	10.1	92.1	
+5	9.8	92.4	
+6	9.3	92.9	
L	8.7	93.5	✓
C6.	8.8	93.4	
+2	8.9	93.3	
+3	7.5	94.7	
E	6.8	95.4	✓
+10	5.6	96.6	✓
1+50			
-10	5.4	96.8	✓
E	8.2	96.0	✓
+7	7.3	94.9	
+8	8.5	93.7	
C6.	8.3	93.9	
+7	8.0	94.2	
L	8.3	93.9	✓
+8	8.8	93.4	
+10	9.5	92.7	

W/cb		9.7	92 5
W		10.4	91 8 ✓
+10		11.7	90 5 ✓
	2+00		
-10		11.5	90 7 ✓
W		10.0	92 2 ✓
cb.		9.2	93 0
+7		8.6	93 6
+8		8.0	94 2
L		7.5	94 7 ✓
cb.		7.4	94 8
+2		7.4	94 8
+3		6.1	96 1
E		5.4	96 8 ✓
+10		4.4	97 8 ✓
	2+50		
-10		3.0	99 2 ✓
E		4.0	98 2 ✓
+7		4.7	97 5
+8		6.6	97 6
cb.		6.6	95 6

L		6.6	95 6 ✓
+7		7.2	95 0
+8		8.2	94 0
cb.		9.7	93 5
W		9.3	92 9 ✓
+10		11.1	91 1 ✓
	3+00		
-10		11.0	91 2 ✓
W		9.5	92 7 ✓
cb.		8.3	93 9
+7		7.7	94 5
+8		6.9	95 3
L		6.1	96 1 ✓
cb.		5.5	96 7
+2		5.5	96 7
+3		3.7	98 5
E		3.0	99 2 ✓
+10		1.5	100 7 ✓
	(This Section 10' cbs 50' wide)		20' cbs.
	3+49.98 = S.L. NAPIER 80' Wide		
-10		+1.2	103 3 ✓
E		1.1	101 1 ✓

+7	2.6	99.6
+8	4.4	97.8
cb.	4.4	97.8
+10	4.8	97.4
℄	5.7	96.5 ✓
Cb	8.0	94.2
W	9.0	93.2 ✓
+20 = W cb produced from N	12.4	89.8 ✓
+40 = W L. " from N	15.1	87.1 ✓
S cb. Napier = 20' North of SL.		
-40 = W L. on N	14.6	87.6 ✓
-20 = W cb. " "	11.6	90.6 ✓
W	9.0	93.2 ✓
+10' = cb.	7.7	94.5
+25' = ℄	5.2	97.0 ✓
+5	4.5	97.7
cb	4.5	97.7
+1	4.5	97.7
+2	2.5	99.7
E	1.0	101.2 ✓
+10	11.5	103.7 ✓

℄ Napier this section 50' Wide 10' cbs

E -10	+2.5	104.6 ✓
E = Prop Line to South	0.6	101.6 ✓
+10' = cb.	2.2	100.0 ✓
+1	4.0	98.2
+10	4.1	98.1
℄	4.7	97.5 ✓
cb.	7.5	94.7
W	9.3	92.9 ✓
+20' = W cb. on N	12.0	90.2
+40	14.4	87.8 ✓

From ℄ Napier to SL. Milton Galveston is 80' Wide 20' cbs.

℄ Napier this section 80' Wide 20' cbs

W	14.4	87.8 ✓
cb.	12.0	90.2
℄	9.3	92.9 ✓
cb.	5.5	96.7
+10	4.1	98.1
+19	3.9	98.3
E	2.2	100.0 ✓

E+10 = East Line to South		0.6	101.6 ✓
N cb. Napier = 20' N of ℄			
-10		0.1	102.1 ✓
E		2.0	100.2 ✓
+1		3.2	99.0
+12		4.3	97.9
cb.		5.4	96.8
℄		9.2	93.0 ✓
cb.		12.0	90.2
+10		13.4	88.8
W		15.0	87.2 ✓
0+00 = N.L. NAPIER St.			
2" Iron Pipe			chk P-20
chk. NW. Napier		15.05	87.14 87.15 P-20
W		15.4	86.8 ✓
+8		14.8	87.4
+15		12.7	89.5
cb.		12.2	90.0
℄		9.4	92.8 ✓
cb.		5.3	96.9
+15		3.0	99.2
E		1.8	100.4 ✓
+10		+0.5	102.7 ✓

T.P.	9.47	108.32	3.34 98.85
0-13 = ℄ 24" dble Palm on W 12' in Galveston ✓			
0+25			
-10			6.0 102.3 ✓
E			7.4 100.9 ✓
cb.			10.7 97.6
+5			11.5 96.8
℄			15.4 92.9 ✓
+15			20.7 87.6
cb.			20.7 87.6
+6			21.6 86.7
+12			22.8 85.5
W			24.0 84.3 ✓
+20			25.6 82.7 ✓
0+22 = 12" popper tree 14' in St. ✓			
+47 = 12 " " 14' " " ✓			
0+50			
-20			24.8 83.5 ✓
W			22.5 85.8 ✓
+12			21.1 87.2
+15			20.1 88.2

	108.32		
W cb.	19.3	89 0	
+5	18.7	89 6	
L	16.0	92 3	✓
cb.	11.1	97.2	
E	6.6	101.7	✓
+10	5.3	103 0	✓
0+75			
-10	4.5	103 8	✓
E	6.1	102 2	✓
cb.	10.0	98 3	
L	15.1	93.2	✓
+15	18.8	89 5	
cb.	19.5	88.8	
+6	19.9	88 4	
+10	21.9	86 9	
W	22.8	85 5	✓
+20	24.3	84 0	✓
1+00			
-20	25.8	82 5	✓
W	23.7	84 6	✓
+10	21.8	86 5	

	108.32		
+14	20.3	88 0	
cb.	19.9	88.4	
+5	19.2	89 1	
L	14.3	94 0	✓
cb.	8.4	99 9	
E	3.0	105 3	✓
+10	0.0	108 3	✓
1+25			
-10	+0.3	108.6	✓
E	1.4	106 9	✓
cb.	6.3	102.0	
+7	8.1	100 2	
L	12.7	95 6	✓
+7	15.7	92 6	
+16	17.9	90.4	
cb.	20.1	88 2	
+6	20.1	88 2	
+9	22.7	85 6	
W	23.7	84 6	✓
+15	25.9	82 4	✓

East side = 0.45' Back.
1+15 = L Smoke House on W 28' long by 12' wide.

	1+52	108.32		GALVESTON St. X-Section	
1+52 = ℄ Garage on West					
-15.4 of Garage			24.6	83.7	
-11' top Apron			25.4	82.9	
W			24.7	83.6	✓
+12			23.7	84.6	
+15			21.4	86.9	
cb.			20.6	87.7	
℄			14.9	93.4	✓
+4			14.2	94.1	
cb.			8.5	99.8	
+10			5.8	102.5	
E.			3.6	104.7	✓
+10			2.0	106.3	✓
	1+75				
-10			4.1	104.2	✓
E			6.0	102.3	✓
+4			6.4	101.9	
cb.			11.9	96.4	
T.P.	4.77	100.50	12.59	95.73	
℄			9.5	91.0	✓
+12			13.5	87.0	

		100.50			
cb.			14.0	86.5	
+7			15.7	84.8	
W			17.2	83.3	✓
+20			19.0	81.5	✓
1+92.10 = South end shed on W 10.5' in St.					✓
2+12.6 = W " " " " 10.5' " "					✓
	2+00				
-20			20.6	79.9	✓
W			17.6	82.9	✓
cb.			16.0	84.5	
+10			13.8	86.7	
℄			10.1	90.4	✓
cb.			6.5	94.0	
E.			0.8	99.7	✓
+10			+1.5	102.0	✓
	2+25				
-10			1.8	98.7	✓
E			4.1	96.4	✓
cb.			8.3	92.2	
℄			12.1	88.4	✓
+13			13.5	87.0	

		100.50		
W cb.		15.7	84.8	
W		18.4	82.1	✓
+20		22.4	78.1	✓
	2+50			
-20		21.6	78.9	✓
W		21.6	78.9	✓
+6		21.0	79.5	
+16		17.6	82.9	
cb.		17.0	83.5	
L		15.0	84.5	✓
cb.		10.7	89.8	
E		6.8	93.7	✓
+10		5.4	95.1	✓
	2+75			
-10		8.9	91.6	
E		10.1	90.4	✓
T.P.	0.61	88.57	12.54	87.96
cb.		2.4	86.2	
L		5.1	83.5	✓
cb.		7.2	81.4	
+9		9.5	79.1	

		88.57		
W		10.0	78.6	✓
+20		10.5	78.1	✓
	3+00			
-20		11.5	77.1	✓
W		11.0	77.6	✓
cb.		8.7	79.9	
L		7.0	81.6	✓
cb.		4.2	84.4	
E		1.3	87.3	✓
+10		0.0	88.6	✓
	3+25			
-10		2.3	86.3	✓
E		3.3	85.3	✓
cb.		6.1	82.5	
+15		7.8	80.8	
L		8.9	79.7	✓
cb.		10.3	78.3	
W		12.3	76.3	✓
+20		14.1	74.5	✓
	3+49.93 = S.L. Mt. Hope St.			
W		14.4	74.2	✓

		88.57			
cb.			12.0	76.6	
℄			10.6	78.6 ✓	
cb.			8.3	80.3	
E			5.7	82.9 ✓	
chk. & Mon. M. Hon.		+Galveston	12.97	75.61	p-29
T.P.	10.32	98.28	0.61	87.96	
T.P.	9.78	105.51	2.55	95.73	
T.P.	0.02	98.88	6.65	98.86	
chk NW 2" pipe			11.71	87.17	p-43
Napier & Galveston				87.14 0.03	

→ Nova Elev. 75.03 Grade Book 215/78

Walker
BMs
Isbell
11-14-40

BENCH MARKS

on FRANKFORT STREET

from MILTON to GARDENA

The Temporary BMs shown on Pages 2, 3, were used to establish Elevations on Brass Plugs as noted this Page

			53.67	Pipe W.L. Frankfort & Napier
6.60	61.35		54.75	
		6.22	55.13	Cop. Disk in c6 & Orten W c6 Frankfort
4.86	61.97		57.05	
		4.85	57.06	2" I. Pipe NWI Ashton & Frankfort
2.51	60.72		58.21	
		5.09	55.63	Cop. Disk N.L. Gardena W c6 Frankfort
5.11	69.23		64.12	
		5.11	64.12	

Benchs put in Bench Books 11-15-40.
C.S.K.

48

Conc. Mon. & Frankfort & Milton.

NWI B.P. NAPIER & Frankfort — Plug 1' North of c6 B.C. Rd. on W c6. Frankfort.

Brass Plug, 1' North of & ORTEN on W c6. Frankfort.

NWI B.P. Ashton & Frankfort. — Plug 1' North of c6 B.C. Rd. on W c6. Frankfort.

Brass Plug, 1' North of North Line Gardena, W c6. Frankfort.

Cross Section Alley Block 84 City Hts
From Dwight to Landis
Between 36th + Cherokee

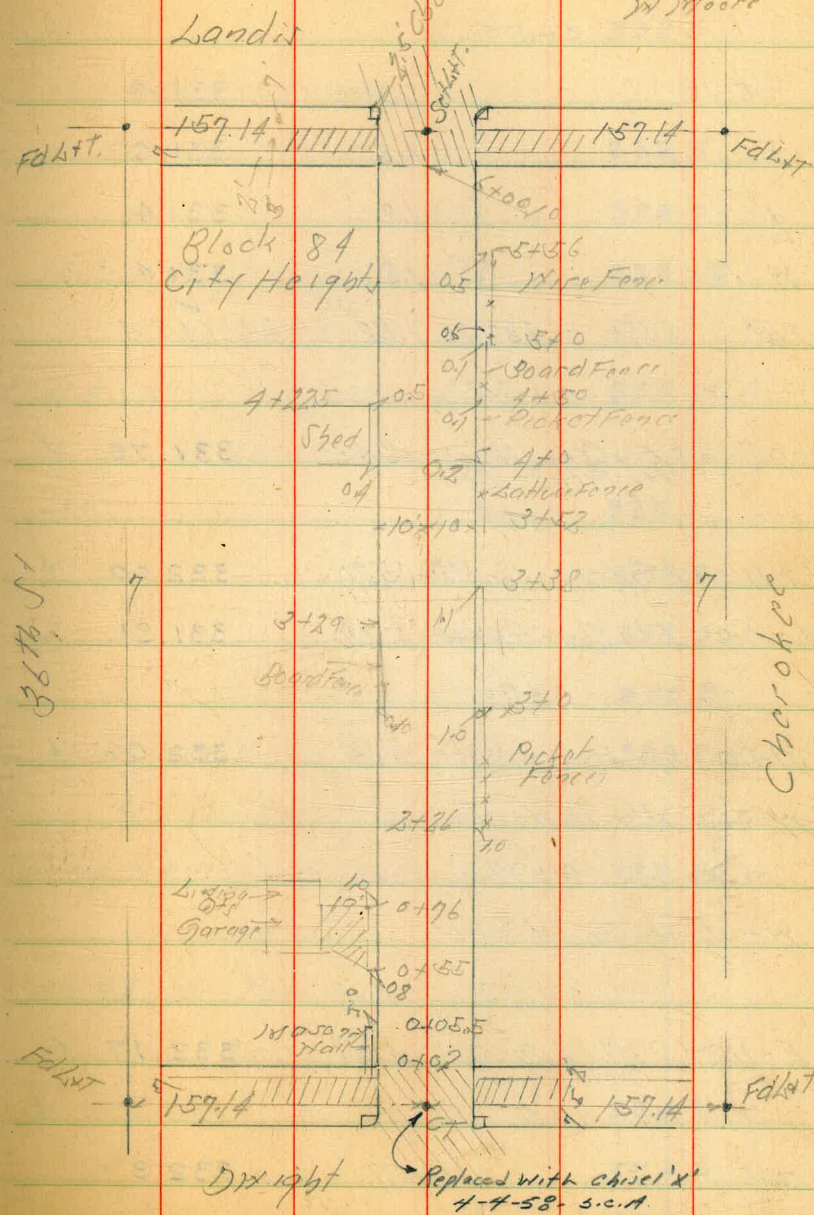
B.M	5.61	333.16	327.55	H.H.B.P. Dwight + 36th St
	0-14 = N Cb Dwight			
W on Paving		5.25	327.91	
¢ " "		5.20	327.96	
E " "		5.24	327.92	
	0+0 = N L Dwight			
E Top Cb		4.46	328.70	
E on Paving		4.65	328.51	
¢ " "		4.84	328.32	
W " "		4.79	328.37	
W Top Cb		4.59	328.57	
	0+05.5			
W-0.5: Top Masonry Wall		2.79	330.37	✓
W-0.2 = 5 ft Picket Fence				
W Ground		3.7	329.5	
	0+15			
W		2.9	330.3	
¢		3.4	329.8	
+5		3.2	330.0	
E		2.7	330.5	
+2.7 = Wly Brick Chimney		2.7	330.5	✓

Red. + Plot. 12-10-40 C.B.H.

INDEXED
EFB

32926

Dec. 9. 40
Sisson
Hartgen
W Moore



	333.16			
	0+50			
-5			1.8	331.4
E			1.6	331.6
℄			1.8	331.4
W			1.8	331.4
IP	5.56	337.20	1.52	331.64
	0+55			
W-0.8 = S Ely Conc Apron = W Ly Picket Fence			5.45	331.75 ✓
	0+64			
W-11.0 = ℄ Garage Conc Floor			5.20	332.00 ✓
W-0.9 = Ely Conc Apron			5.29	331.91
	0+76			
W-1.0 = W Ely Conc Apron			5.14	332.06 ✓
W-0.2 = W Ly Power Pole				
	0+77			
W+0.6 = S Ly Board Fence				
	0+78			
E-11.3 = S W Ly 4 Car Garage Conc Floor			4.03	333.17 ✓
	1+0			
-5			4.9	332.3

	337.20		
W		4.7	332.5
+0.5 = N Ly Board Fence			
℄		4.7	332.5
E		4.5	332.7
+11.3 = W Ly 4 Car Garage Conc Floor		4.08	333.12
	1+22		
E-11.4 = N W Ly 4 Car Garage Conc Floor		4.09	333.11 ✓
	1+50		
-10		4.1	333.1
E		3.9	333.3
℄		4.2	333.0
W		4.0	333.2
+10		4.0	333.2
	1+64		
E-13.5 = ℄ Do. Garage Conc Floor		3.60	333.60 ✓
	1+77		
W+0.2 = W Ly Power Pole			
	2+0		
W		3.0	334.2
℄		3.0	334.2
E		3.7	3345

	337.20		
2+04			
W-3' = S Ely Conc Apron	2.70	334.50	✓
W-5.8 = S Ely Do Garage C.F.	2.64	334.56	✓
2+88			
W-5.9 = N Ely Do. Garage C.F.	2.45	334.75	✓
W-3' = N Ely Conc Apron	2.51	334.69	✓
2+23.5			
W-3' = 2 2.5 Conc Walk	2.50	334.70	✓
2+29.5			
W = S Ely Picket Fence			
2+50			
-10	2.3	334.9	
E	2.3	334.9	
2	2.3	334.9	
W	2.3	334.9	
2+81.5			
W = N Ely Picket Fence			
2+59			
W-6.5 = 2 Garage Conc Floor	1.72	335.48	✓
TP 5.27	340.65	1.82	335.38

	340.65		
2+83.5			
W = S Ely Conc Apron	4.95	335.70	✓
2+95			
W = N Ely Conc Apron	4.80	335.85	✓
-5.7 = N Ely Garage Conc Floor	4.81	335.84	✓
3+0			
W	4.9	335.8	
+019 = W Ely Power Pole			
2	5.2	335.5	
E	5.1	335.6	
3+38			
W-5' = 2 Do. Garage C. Floor	3.93	336.72	✓
3+46			
E-5.9 = 2 Garage Conc Floor	3.97	336.68	✓
3+50			
E	4.1	336.6	
2	4.3	336.4	
W	4.3	336.4	
+10	4.0	336.7	
3+53			
E-1.2 = 2 2.1' Conc Walk	4.00	336.65	✓

			340.65		
		4+00			
-10			3.9	336.7	
W			3.7	337.0	
+1.0' = W'ly Power Pole			3.7	337.0	
℄			3.7	337.0	
E			3.5	337.2	
+10			3.3	337.4	
TP	6.09	343.32	3.42	337.23	
		4+38			
W-5' = E'ly Conc Apron			5.85	337.47	✓
W-6.9 = ℄ Do. Garage Conc Floor			5.93	337.59	✓
		4+50			
E			5.5	337.8	
℄			5.8	337.5	
W			5.9	337.4	
		4+56			
W-1.3 = E'ly Conc Apron			5.81	337.51	✓
W-5.1 = ℄ Garage Conc Floor			5.93	337.59	✓
		4+93			
W-1.0 = E'ly Conc Apron			5.20	338.12	✓
W-4.7 = ℄ Garage Conc Floor			5.10	338.22	✓

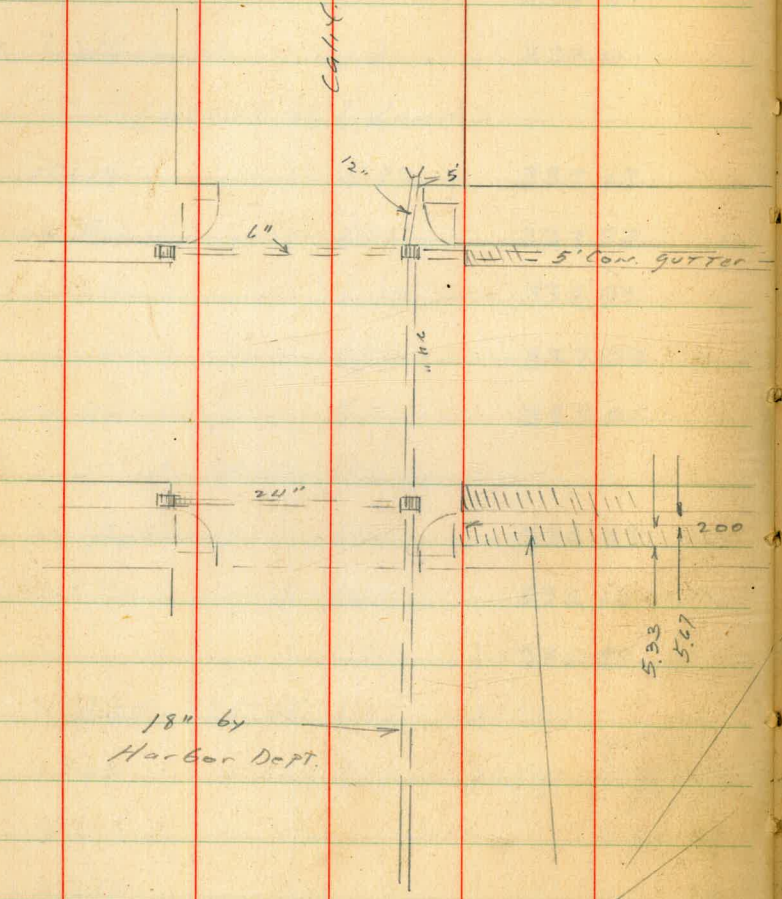
			343.32		
		5+00			
W			5.2	338.1	
℄			5.0	338.3	
+6			4.6	338.7	
E			4.5	338.8	
+10			4.7	338.6	
		5+02			
W+0.5 = W'ly Power Pole					
		5+34			
W-4.6 = ℄ Garage Dirt Floor			5.0	338.3	✓
		5+47			
W-4.5 = ℄ Garage Conc Floor			4.90	338.42	✓
		5+50			
-10			4.7	338.6	
E			4.7	338.6	
℄			4.5	338.8	
W			4.9	338.4	
		5+86			
-24 = E'ly House			4.3	339.0	
W			4.3	339.0	

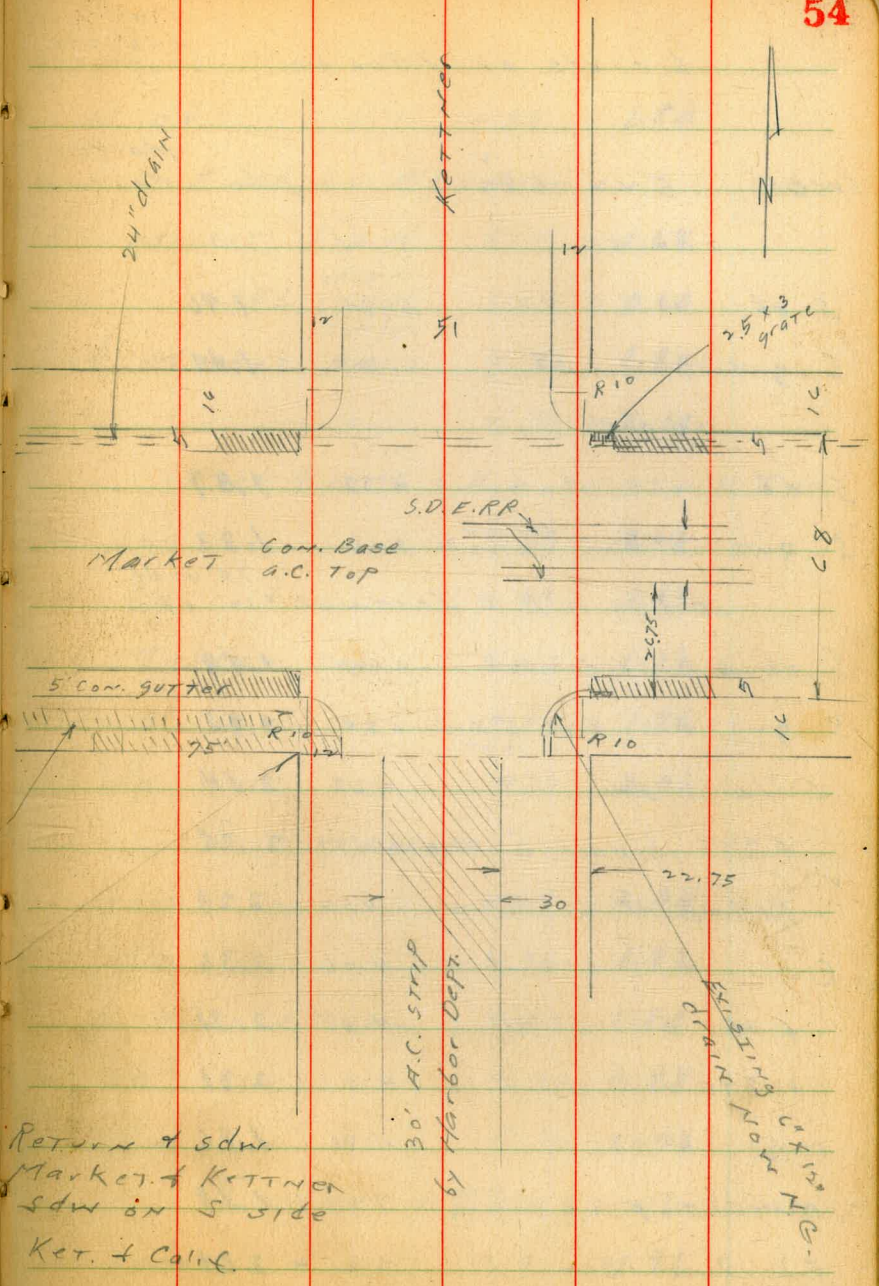
		343.32			
℄			4.7	338.6	
E			4.3	339.0	
+6 = Wy House			4.3	339.0	
6+00.10 = S℄ Landis					
E Top Cb			5.87	337.45	
E on Paving			6.10	337.22	
℄ " "			6.39	336.93	
W " "			6.23	337.09	
W Top Cb			6.11	337.21	
6+14.10 = SCb Landis					
W on Paving			6.95	336.37	
℄ " "			6.80	336.52	
E " "			6.73	336.59	
TP	4.52	341.46	6.38	336.94	
BM			6.18	335.28	N.W. B.P. Landis [illegible] 335.25

Moore
Osborne
Sommermeyer
1-29-41

X sec for drainage Kettner & Market

Indexed v.M.





Rebuild 12 x 16 on Syl. Cor and 200' of Market bet.

Return 4 sdw. Market & Kettner sdw on S side Ket. & Calif.

Levels on Market St. (100' wide, 14' cbs, 17' 1/4's)

SWBP	5.42	6.82		1.40	Market Kettner
00-50					
S cb			4.86	1.96	
S gut			5.35	1.47	
00-5					
S cb			4.93	1.89	
S gut	5' Con. apron inlet		5.49	1.33	
0+00 = E L Kettner = 75' wide 12' cbs					
S cb of Ex. Hd. wall			4.94	1.88	
S gut. F.L. Ex. 6"x12" inlet			5.89	0.93	
S 1/4 pav			4.68	2.14	
+9.75 S rail S Track			4.57	2.25	
+14.45 N " "			4.53	2.29	
℄			4.46	2.36	
+4 S " N "			4.51	2.31	
+8.75 N " " "			4.51	2.31	
N 1/4			4.86	1.96	
gut Top 2.5x3 iron grate			5.63	1.19	
F.L. Junc. Box			9.91	-3.09-	

6.82

N cb	4.98	1.84
E cb on Kettner		
S L Market Top cb	5.14	1.68
" " F.L. of Ex. 6"x12" outlet	6.22	0.60
S cb Market pav.	4.88	1.94
S 1/4 "	4.71	2.11
E cb + 10.75 = E.L. 30' strip pav		
-100	4.59	2.23
-50	4.89	1.93
S.L. Market pav	5.45	1.37
S cb " "	4.96	1.86
S 1/4 " "	4.76	2.06
℄ Kettner		
-100	4.49	2.33
-50	4.90	1.92
S L Market pav	5.27	1.55
S cb " "	4.99	1.83
S 1/4 " "	4.80	2.02
℄ Ket. + 15.25 = W L 30' strip		
-100	4.91	1.91

C. 82

— 50	5.31	1.51
S L Market pav	5.00	1.22
S c6 " "	5.27	1.55
S 1/4 " "	4.90	1.92
W c6 Line Ket.		
S L Market Top Curb	5.82	1.00
" " gut pav	9.98	—3.16— ?
S c6 " "	5.70	1.12
S 1/4 " "	4.93	1.89
W. L. Ket. = 0+00		
S c6 Market	5.43	1.39
S gut	5.97	0.85
0+25		
S c6	5.57	1.25
gut	6.07	0.75
0+50		
S c6	5.66	1.16
gut	6.13	0.69
0+75		
S c6	5.76	1.06
gut	6.22	0.60

C. 82

1+00		
S c6	5.85	0.97
gut	6.29	0.53
1+25		
S c6	5.98	0.84
gut	6.39	0.43
1+50		
S c6	6.05	0.77
gut High Spot	6.39	0.43
1+75		
S c6	6.03	0.79
gut	6.46	0.36
2+00		
S c6	6.01	0.81
gut	6.55	0.27
Junction Box S.E. Calif + Market		
Top grate	6.77	0.05
F.L. of 24" from North and West	11.62	—4.80— also Box
F.L. of 18" to South	11.37	—4.55—

6.87

Grate & Box SW Calif & Market		
Top grate	6.57	0.25
F.L. Box & 24" pipe	10.28	-3.46-
Grate & Box NW Calif & Market		
Top Grate	6.61	0.21
F.L. Box & 6" pipe	8.61	-1.79-
Grate & Junction Box NE Cor Calif & Market		
Top grate	6.61	0.21
F.L. Box & 24" pipe	11.20	-4.38-
F.L. 12" pipe	9.70	-2.88-
F.L. of 12" inlet pipe	8.90	-2.08-

51. N. of NLM Marker
See Sketch

Indexed
LM

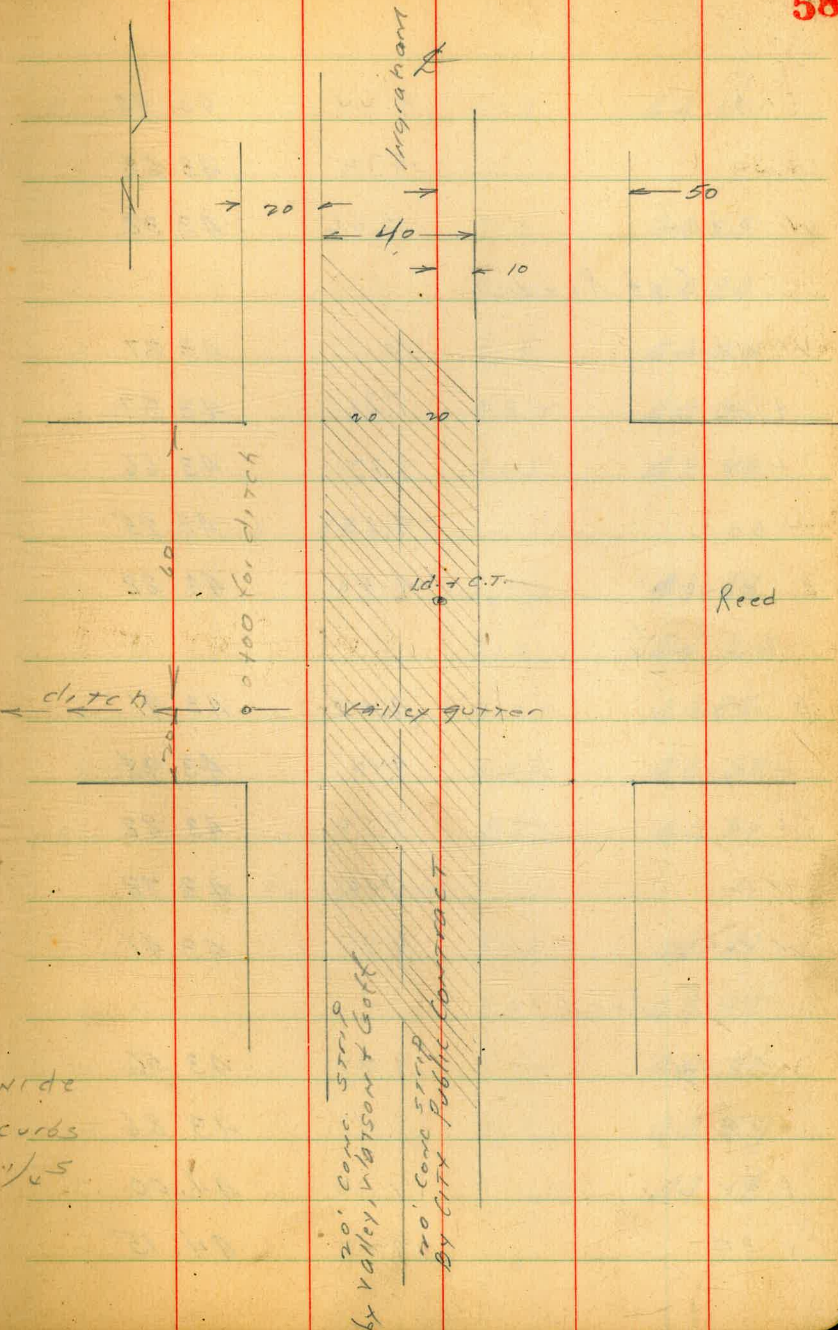
Moore
2-21-41

Levels on 40' strip Pav. on
Ingraham at Reed

N E B P	0.32			55.85	Grand & Ingraham
T.P. E Ld & C.T.	9.23	53.38	12.02	44.15	Reed & Ingraham
100' S of S.L. Reed					
E edge Pav.			7.64	45.74	
+10 = ℄ Ingraham			7.60	45.78	
+20			7.74	45.64	
+30			8.00	45.38	
+40 = W. edge Pav.			8.40	44.98	
50' S of S L Reed					
W. edge			9.11	44.27	
+10			8.67	44.71	
+20			8.35	45.03	
+30			8.18	45.20	
E edge			8.22	45.16	
S L Reed					
E edge			9.28	44.10	
+10			9.26	44.12	

Rep't Ploted on 1203 2-26-41 BH

Reed = 80' wide
20' curbs
10' 1/4 s



+20	9.44	43.94
+30	9.70	43 68
W edge	10.06	43 32
S c6 Reed		
W edge	10.11	43 27
+10	9.81	43 57
+20	9.72	43 66
+30	9.53	43 85
E edge	9.56	43 82
S 1/4		
E edge	9.47	43 91
+10	9.40	43 98
+20	9.56	43 82
+30	9.66	43 72
W edge	9.97	43 41
E Reed		
W edge	9.82	43 56
+10	9.52	43 86
+20	9.38	44.00
+30	9.73	44.15

E edge	9.27	44.11
N 1/4		
E edge	9.10	44 28
+10	9.06	44 34
+20	9.18	44 20
+30	9.32	44 06
W edge	9.65	43 73
N c6 Reed		
W edge	9,50	43 88
+10	9.14	44.24
+20	9.00	44 38
+30	8.86	44.52
E edge	8.87	44 51
N L Reed = 040		
E edge	8.89	44.89
+10	8.41	44 97
+20	8.52	44 86
+30	8.79	44 59
W edge	9.20	44 18

	0+50		
W edge		8.44	44.94
+10		8.07	45.31
+20		7.88	45.50
+30		7.78	45.60
E edge		7.88	45.50
	1+00		
E edge		7.30	46.08
+10		7.14	46.24
+20		7.20	46.18
+30		7.39	45.99
W edge		7.77	45.61

over for duct xs-c

Levels on storm ditch on Reed
Ingraham W'ly

Indexed
LM

Station		LT.				℄ Reed Basline
2+00	48.5 / 4.9 / 29	42.6 / 10.8 / 21	42.6 / 10.8 / 19	48.3 / 5.1 / 12	48.4 / 5.0	
+50	49.2 / 4.2 / 32	47.0 / 6.4 / 25	42.9 / 10.5 / 20	42.9 / 10.5 / 18	48.4 / 5.0 / 12	48.7 / 4.7
1+00	48.9 / 4.5 / 30	48.0 / 5.4 / 25	43.1 / 10.3 / 21	43.1 / 10.3 / 19	48.7 / 4.7 / 12	48.4 / 5.0
0+50	47.7 / 5.7 / 25	43.3 / 10.1 / 21	43.3 / 10.1 / 19	47.9 / 5.5 / 16	47.3 / 6.1 / 10	46.8 / 6.6
0+20	46.6 / 6.8 / 26	43.0 / 10.4 / 22	43.0 / 10.4 / 20	46.9 / 6.5 / 16	45.5 / 7.9 / 9	45.2 / 8.2
0+0 = W.L. Ingraham	45.5 / 7.9 / 25	43.3 / 10.1 / 32	43.4 / 10.0 / 20	46.0 / 7.4 / 17	44.8 / 8.6 / 13	44.6 / 8.8

5338

5338

5 = Ely Haines

+50

"

+50

3+00

"+50

53.38

LT

Reed

47.6	41.2	41.2	47.9	48.1	
5.8	12.4	14.4	5.5	5.3	
27	21	19	12		
47.5	41.7	41.7	47.0	47.2	
5.9	11.7	11.7	6.4	6.2	
25	21	19	12		
48.1	47.4	42.0	42.0	46.8	46.7
5.3	6.0	11.4	11.4	6.6	6.7
30	28	20	19	11	
47.1	43.3	42.2	42.2	42.6	46.6	46.7
6.3	10.1	11.2	11.2	10.8	6.8	6.7
26	24	19	18	15	12	
47.8	46.2	45.6	42.2	42.2	43.4	47.0	47.1
7.6	7.2	7.8	11.2	11.2	10.0	6.4	6.3
32	29	25	21	20	15	13	
48.0	45.0	42.3	42.3	47.8	47.9
5.4	8.4	11.1	11.1	5.6	5.5
32	30	20	18	11	

53.38

0 + 50

W L Haines = 0 + 00

E. L. Haines + 61

E L Haines + 55

E.L. Haines + 22

E.L. Haines + 17

5338

Lt. Rod

47.6	40.3	40.3	42.3	46.6	46.6
5.8	13.1	12.1	11.1	6.8	6.8
32	21	19	14	9	
48.4	41.1	41.1	44.1	48.2	48.2
5.0	12.3	12.3	9.3	5.2	5.2
30	21	19	12	10	
	48.1	39.5	43.9	48.2	48.6
	5.3	13.9	9.5	5.2	4.8
	26	20.5	13	11	
		F.L. 18"			
		47.9		48.0	48.4
		5.5		5.4	4.8
		30		20	
		48.3		47.9	49.4
		5.1		5.5	5.0
		30		20	
	48.3	40.2		48.1	48.3
	5.1	13.20		5.3	5.1
	27	20.5		12	

F.L. 18" Wood Stave Pipe

5338

5+00	Storm water goes S on Gresham				
4+00					
TP	4.19	34.90	17.19	32.71	
3+00					
+50					
2+00					
+50					
1+00					
TP	0.18	44.90	8.66	44.72	
		53.38			

		31.9 / 5.0 / 24	31.6 / 5.3 / 18	31.6 / 5.1	32.2 / 4.6
		31.6 / 5.1 / 30	33.8 / 3.1 / 26	32.2 / 4.7 / 10	32.1 / 4.8
EM 6+			34.90		
33.6 / 11.3	34.6 / 10.3 / 25	33.9 / 11.0 / 24	33.7 / 11.2 / 11	33.0 / 11.9 / 10	33.9 / 11.0
EM 6+30					
	35.5 / 9.4 / 24	35.1 / 9.8 / 22	35.1 / 9.8 / 15	35.5 / 9.4 / 13	35.5 / 9.4
	37.3 / 7.4 / 25	35.7 / 9.4 / 22	35.8 / 9.1 / 18	37.3 / 7.6 / 17	37.4 / 7.5
41.3 / 3.6 / 25	40.1 / 4.8 / 22	36.8 / 8.1 / 21	36.8 / 8.1 / 19	38.3 / 6.6 / 18	40.3 / 4.6 / 15	40.2 / 4.7
44.9 / 0.0 / 34	39.2 / 5.7 / 22	38.7 / 6.2 / 16	38.7 / 6.2 / 14	43.5 / 1.4 / 11	43.2 / 1.7
		44.90			

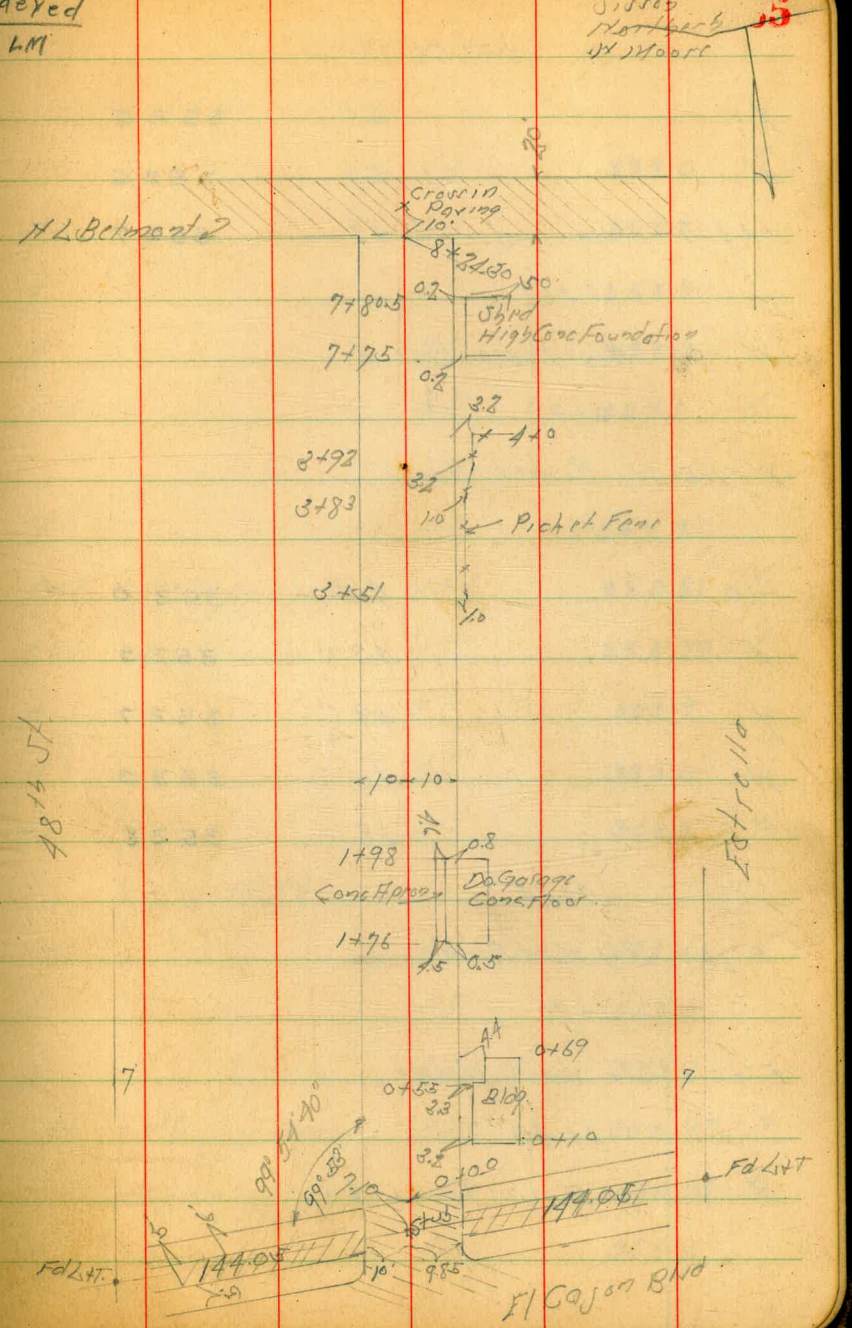
Cross Section Alley Block B Belmont
From H.L. E/Cajon Blvd to H.L. Belmont
Between 48th St. & Estrella

BM	6.03	357.55	351.52	N.Y.&P. E/Cajon & Estrella
		0+16 = H.L. E/Cajon Blvd.		
E on Paving		6.99	350.56	
℄ " "		7.02	350.53	
W " "		7.01	350.54	
		0+0 = H.L. E/Cajon Taken on Diag.		
W. Top Cb		6.30	351.25	
Gutter on Paving		6.44	351.11	
℄ " "		6.73	350.82	
Gutter " "		6.53	351.02	
E Top Cb		6.30	351.25	
	0+10			
-3.2 = S'rly Cor. Bldg.		.54	352.2	
E		.55	3521	
℄		.61	3515	
W		.55	3521	
+10		.49	3527	
	0+55			
-10		.50	3526	
W		.48	352.8	

Indexed
LM

Ted - plotted on field Profile 3-27-41 BH

March 22-41
Sisso
Northerly
W Moore



357.55		
℄	5.0	352.6
E	5.0	352.6
+3.3 = W'ly Bldg	4.9	352.7
0+62		
W -0.2 = W'ly Power Pole ✓		
0+98		
W -1.5 = S'ly Picket Fence		
1+0		
-10	4.6	353.0 ✓
E	4.7	352.9
℄	4.9	352.7
W	4.6	353.0
+10	4.8	352.8 ✓
1+24		
E +0.3 = S'ly Wire Fence		
1+46		
E +0.3 = S'ly Log House		
1+49		
W -1.8 = N'ly Picket Fence ✓		

357.55		
1+50		
-10	4.6	353.0 ✓
W	4.3	353.3
℄	4.7	352.9
E	4.7	352.9
+10	4.5	353.1 ✓
1+76		
E	4.8	352.8
+0.5 = S'ly Do Garage Conc = N'ly Log House	4.74	352.81 ✓
+5.1 = N'ly Conc Apron	4.82	352.73 ✓
℄	4.7	352.9
W	4.6	353.0
+10	4.7	352.9 ✓
1+98		
-10	4.5	353.1 ✓
W	4.4	353.2
℄	4.4	353.2
+4.6 = N'ly Conc Apron	4.58	352.97 ✓
+9.2 = N'ly Do Garage Conc Floor	4.60	352.95 ✓
E	4.6	353.0

	357.55		
2+01			
W = W'ly Power Pole ✓			
2+02			
℄ = Existing MH	4.42	353.13 on Rim ✓	
2+25			
-10	4.1	353.5 ✓	
E	4.2	353.4	
℄	4.3	353.3	
W	4.4	353.2	
+15	5.1	352.5 ✓	
2+51			
-10	4.4	353.2 ✓	
W	4.4	353.2	
℄	4.4	353.2	
E = Sly Picket Fence ✓	4.2	353.4	
+10	4.0	353.6 ✓	
2+84			
E = W'ly Picket Fence ✓			
2+93			
E -5.2 = ℄ Garage Conc Floor	3.40	354.15 ✓	

	357.55		
E -0.1 = ℄ Conc Apron	3.76	353.79 ✓	
2+98			
W +0.2 = W'ly Power Pole ✓			
3+0			
-10	4.1	353.5 ✓	
E = W'ly Picket Fence ✓	4.1	353.5	
℄	4.0	353.6	
+3.6 = Sly Conc Apron	3.80	353.75 ✓	
W	4.0	353.6	
+0.8 = Sly Do Garage Conc Floor	3.36	354.19 ✓	
3+23			
W -0.9 = W'ly Do Garage	3.27	354.28 ✓	
W = Sly Lattice Fence ✓			
W +1.2 = W'ly Conc Apron	3.50	354.05 ✓	
3+35			
W +0.2 = W'ly Lattice Fence ✓			
W -1.0 = Sly Frame Bldg. ✓			
3+44			
E -4.0 = ℄ Garage Conc Floor	3.19	354.36 ✓	
3+49			
W -1.8 = W'ly Frame Bldg ✓			

	357.55		
3+51			
-10		3.9	353.7 ✓
℄		3.7	353.9
℄		3.8	353.8
E		3.5	354.1
+10. = Sly Picket Fence			
PP	8.95 362.80	3.70	358.85
3+58			
W -2.2 = Sly Stucco Bldg		✓	
W +0.5 = Ely Brick Walk		8.62	354.18 ✓
W +1.0 = Sly 3' Lath Fence		✓	
3+62			
W-2.2 ℄ 2.5 Door on Step		8.30	354.50 ✓
3+86			
W -2.2 = Wly Stucco Bldg		✓	
W +0.8 = Lath Fence		✓	
3+95			
W +0.8 = Wly Lath Fence		✓	
4+0			
-10		7.6	355.2

	363.80		
E		7.7	355.1
℄		8.1	354.7
W		7.7	355.1
4+02			
W -2.4 = ℄ Garage Conc Floor		7.52	355.28 ✓
4+44			
W -2.4 = Sly Wire Fence		✓	
4+24			
W +1.0 = Wly Power Pole		✓	
4+34			
W -2.0 = Wly Wire Fence		✓	
4+38.5			
W -2.0 = Sly ℄ Car Garage Conc Floor		6.78	356.02 ✓
W = Sly Conc Apron		7.02	355.78 ✓
℄		7.6	355.2
E		7.3	355.5
+10		7.1	355.7 ✓
4+72			
-10		6.5	356.3 ✓
E		6.5	356.3

362.80

℄	6.9	355.9
W = W'ly Conc Apron	6.88	355.92 ✓
+2.0 = W'ly 4 Car Garage Conc Floor	6.67	356.13 ✓
4+73		
W-2' = 2' Conc Open Drain	7.39	355.41 ✓
W-16'	7.21	355.59 ✓
4+74		
W-1.6 = S'ly Picket Fence W/4½ Conc Base		
4+75		
W-2' = E'ly 2'±15 Open Conc Drain	7.05	355.75 ✓
4+92		
E-1.2 = ℄ Garage Conc Floor	5.68	357.12 ✓
5+0		
-10	6.2	356.6 ✓
-1.7 = Top Conc Base Fence	5.68	357.12
W	6.0	356.8 ✓
℄ = Existing MH	5.92	356.88 Rim
E	5.8	357.0
5+01		
E-0.9 = S'ly Lot's House Conc Foundation Top	4.70	358.10 ✓

362.80

5+19

E-0.9 = W'ly Lot's Ho. Conc Foundation Top = S'ly Picket Fence	4.70	358.10 ✓
5+23		
W-1.0 = W'ly Pole ✓		
W-1.7 = W'ly Pick Fence Conc Base Top = S'ly Lot's Fence	5.43	357.37
5+60		
-10	4.8	358.0 ✓
-1.0 = W'ly Pick Fence ✓		
E	5.0	357.8
℄	5.1	357.7
W	5.4	357.4
+10	5.8	357.0 ✓
5+67		
W-1.4 = W'ly Lot's Fence ✓		
5+93		
W-1.1 = E'ly 4" Conc Wall	4.43	358.37 ✓
5+93		
W1.0 = S'ly Wire Fence ✓		

362.80

5+98

E -2.3 = Sly Picket Fence ✓

6+00

-10		5.0	357.8 ✓
W		4.2	358.6
℄		4.2	358.6
E		3.5	359.3
+10		3.7	359.1 ✓

6+24

W = Nly W. Fence ✓

W +0.6 = Nly Pow Pole ✓

6+50

-10		3.0	359.8 ✓
E		3.2	359.6
℄		3.2	359.6
W		3.1	359.7
+10		4.0	358.8 ✓

6+74

E -1.4 = Nly Picket Fence ✓

E -0.7 = Sly High Board Fence ✓

362.80

7+00

-10		3.3	359.5 ✓
W		2.3	360.5
℄		2.4	360.4
E		2.5	360.3

7+07

E -0.3 = Nly High Board Fence ✓

TP	5.35	365.77 ✓	2.38	360.42 ✓

7+17

E -0.2 = Nly Conc Apron		4.78	360.99 ✓
E -2.7 = ℄ Garage Conc. Floor		4.23	361.54 ✓

7+25

E		5.1	360.7
+0.1 = Sly High Board Fence ✓			
℄		5.3	360.5
+8.7 = Nly Pow. Pole ✓			
W		5.3	360.5
+10		6.0	359.8 ✓

7+50

-10		6.0	359.8 ✓

		365.77			
W			5.1	360.7	
℄			5.0	360.8	
E			4.8	361.0	
+10			5.0	360.8	✓
7+73					
E+0.3 = Nly High Board Fence ✓					
7+75					
E			4.4	361.4	
-0.2 = Sly Conc Foundation Top			2.24	363.53	✓
7+98					
E-0.3 = ℄ 2' Conc Walk			4.51	361.26	
E			4.7	361.1	
℄			4.6	361.2	
W			4.4	361.4	
+5			4.6	361.2	
8+0					
E+0.3 = SW Cor Shed Conc. Foundation					✓
8+06					
E+0.3 = NW Cor Shed					✓

		365.77			
8+08					
E-2.8 = Sly Do Garage Conc Floor			3.61	362.16	✓
E+0.3 = Sly + Wly Conc Apron			3.88	361.89	—
8+23					
E-2.8 = Nly Do Garage C.F.			3.61	362.16	✓
E = Nly Conc Apron			3.65	362.12	✓
W+1.5 = W Tel. Pole					
8+24.30 = Sly Pav on E+W Alley					
-10 on Paving			4.27	361.50	
W " "			4.05	361.72	
℄ " "			3.86	361.91	
E " "			3.63	362.14	
+3 " "			3.56	362.21	
8+34.3 = ℄ E+W Alley					
-10 on Paving			3.70	362.07	
E " "			3.84	361.93	
℄ " "			4.08	361.69	
W " "			4.33	361.44	
+10 " "			4.53	361.24	
TP	1.81	360.68 ✓	6.90	358.87 ✓	
TP	4.17	357.68 ✓	7.17	353.51 ✓	
BM			6.19	351.49 ✓	351.52 N.W.B.P. El Cajon + Estrella

Cross Section Alleys Block 37 Normal Hts
Between Madison & Adams 32nd & Bancroft
North & South Alley

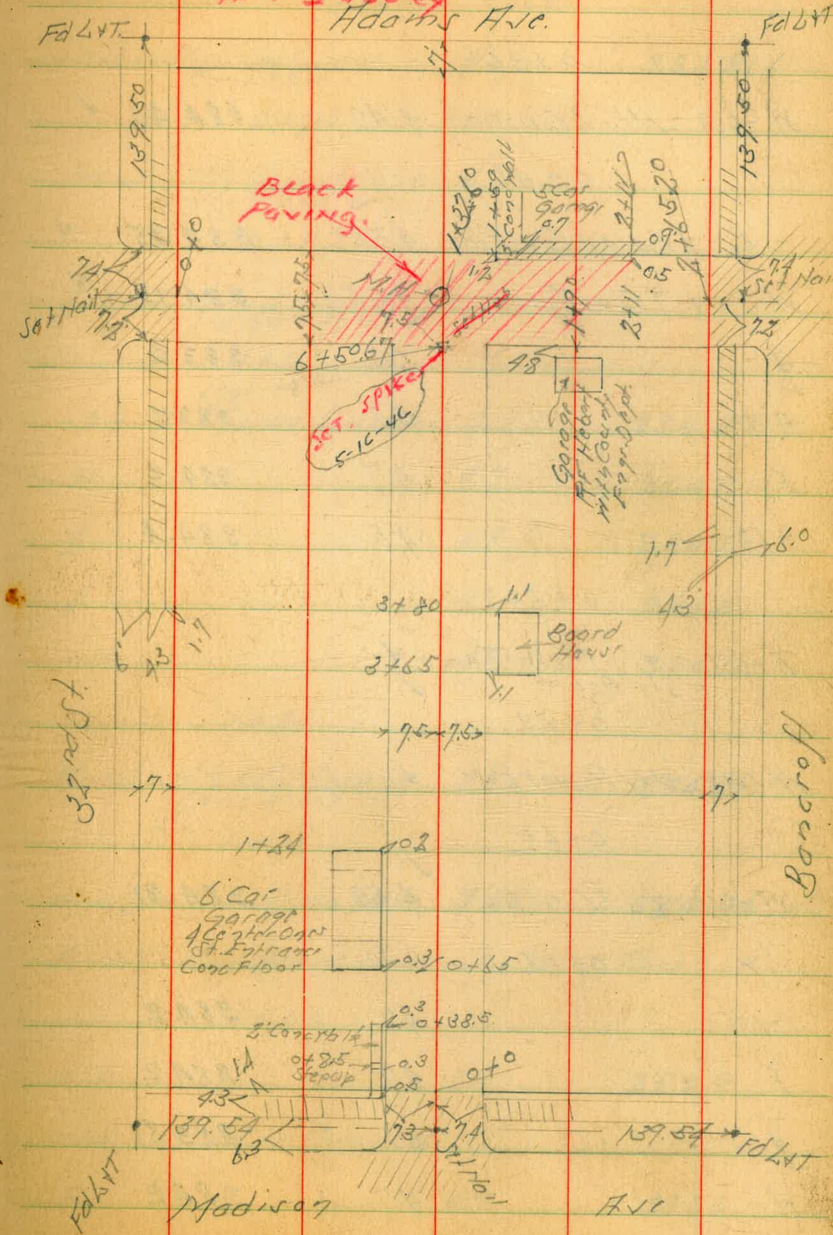
B.M.	3.95	389.75		385.80	S.E.B.P. Adams Ave & 32nd St — destroyed
TP	4.26	388.90	5.11	384.64	
		0-12 = N Cb Madison Ave			
E on Paving			6.86	382.04	
℄ " "			6.83	382.07	
W " "			6.78	382.12	
		0+0 = N.L. Madison			
W Top Cb			5.86	383.04	
W on Paving			6.07	382.83	
℄ " "			6.42	382.48	
E " "			6.44	382.46	
E Top Cb			6.39	382.51	
		0+8.5			
E			5.5	383.4	
℄			6.2	382.7	
+5			6.0	382.9	
W			5.2	383.7	
+0.3 = Fly 2' Conc Walk Top Step			4.46	384.44	
+0.3 Bottom Step			5.08	383.82	
		0+15			
E -0.5: S/y Pickel Fence ✓					

Reduced & Plotted Profile 3-28-41 RH

Indexed
LM

See 1694-39 for Re-xsec of N & S alley

March 24-41
Sisson
Northorp
M Moore



	388.90		
	0+385		
W-0.3 = Nly 2' Conc Walk	4.49	384.41	✓
	0+46		
- 5' = ℄ Garage Conc Floor	4.55	384.35	✓
W = ℄ 7' Conc Apron	4.75	384.15	✓
℄	5.3	383.6	
+5	5.2	383.7	
E	4.7	384.2	
+10	4.5	384.4	
	0+50		
E-0.6 = Nly Picket Fence = Sly Board "	✓ ✓		
	0+53		
W+0.8 = Nly Power Pole	✓		
	0+61		
W-0.3 = ℄ 1.5 Conc Walk	4.59	384.31	
	0+65		
-10	4.7	384.2	
E	4.7	384.2	
℄	5.1	383.8	
W	4.7	384.2	

	388.90		
+0.3 = Sly 6 Car Garage Conc Floor	4.09	384.81	✓
	0+76		
E-0.2 = Nly Board Fence = Sly Shed	✓ ✓		
	0+97		
E-0.5 = Nly Shed = Sly Board Fence	✓ ✓		
	1+0		
-0.3 = Ely 6 Car Garage Conc Floor	4.83	384.57	✓
W	4.7	384.2	
℄	4.8	384.1	
E	4.7	384.2	
+10	4.8	384.1	
	1+24		
W-0.2 = Nly 6 Car Garage Conc Floor	4.05	384.85	✓
	1+26		
W-0.2 = ℄ 1.5 Conc Walk	4.44	384.46	✓
E-0.7 = Nly Board Fence = Sly Wire Fence	✓		
	1+50		
-10	5.0	383.9	
-1.5 = Nly Wire Fence	✓		
E	4.9	384.0	

	388.90		
℄		4.9	384.0
W		4.9	384.0
+10		4.9	384.0
	1+56		
E -6.9 = ℄ Garage Dirt Floor		5.0	383.9 ✓
	1+68		
E -0.3 = S'ly Board Fence		✓	
	1+90		
W -1.4 = S'ly Wire Fence		✓	
	1+98		
W -1.8 = N'ly Wire Fence		✓	
	2+0		
-10		5.1	383.8
E		4.9	384.0
℄		5.1	383.8
W		5.0	3839
+10		5.2	383.7
	2+01		
E -0.2 = N'ly Board Fence		✓	
E +0.2 = S'ly Shed		✓	

	388.90		
	2+15		
W -5.1 : ℄ Garage Dirt Floor		5.4	3835 ✓
E +0.1 : N'ly Shed - S'ly Board Fence		✓	
	2+28		
W +1.5 = W'ly Power Pole		✓	
	2+36		
W -15.6 = ℄ Garage Dirt Floor		4.7	384.2 ✓
	2+50		
-10		5.1	3838
W = E'ly Cypress Hedge		✓ 5.1	3838 ✓
℄		5.2	3837
+7.0 = N'ly Board Fence		✓ S'ly Picket Fence ✓	
E		4.9	384.0
	2+85		
W -1.5 = S'ly Board Fence		✓ = N'ly Cypress Hedge on W℄ ✓	
	3+0		
-10		4.5	384.4
E		4.7	384.2
℄		5.0	3839
W		4.9	384.0
+10		4.9	384.0

	388.90		
	3+01		
E +0.7 = N'ly Picket Fence = S'ly Board Fence			
	3+50		
-10		4.9	384.0
W		4.9	384.0
℄		4.9	384.0
E		4.8	384.1
+10		4.7	384.2
	3+52		
E +0.4 = N'ly Board Fence			
E +0.5 = S'ly Shed			
	3+61		
E +0.5 = N'ly Shed = S'ly Board Fence			
W -0.9 = Picket Fence			
TP	5.40 389.48	4.82	384.08
	3+84		
W +0.3 = N'ly Power Pole			
	4+0		
-10		5.2	384.3
E		4.9	384.6
+0.5 = N'ly Board Fence S'ly Shed			

	389.48		
℄		5.1	384.4
W		4.8	384.7
+0.5 = Picket Fence			
+10		4.9	384.6
	4+17		
E +0.3 = N'ly Shed = S'ly Board Fence			
	4+50		
-10		5.2	384.3
W = N'ly Board Fence		4.6	384.9
℄		4.8	384.7
E		4.8	384.7
+1.0 = N'ly Board Fence = S'ly Wire Fence			
+10		4.7	384.8
	4+82		
E -0.8 = N'ly Wire Fence = S'ly Garage			
	4+95		
E -0.9 = ℄ Garage Conc Floor Used as House		4.41	385.07
	5+0		
-10		4.8	384.7
E		5.3	384.2
℄		5.3	384.2

389.48

W		5.0	384.5
+0.9 = S'ly Stucco Garage West Entrance ✓			
5+19			
W -0.7 = N'ly Stucco Garage = S'ly Lot Fence ✓			
5+25			
W = W'ly Power Pole ✓			
5+51			
-10		5.0	384.5
-0.6 = N'ly Lot Fence S'ly Wire Fence			
W		4.6	384.9
℄		4.8	384.7
E = S'ly Board Fence ✓		4.8	384.6
+10		4.8	384.7
6+0			
-10		4.3	385.2
E = Board Fence ✓		4.6	384.9
℄		4.5	385.0
W		4.4	385.1
+0.5 = N'ly Wire Fence ✓			
+8.0 = S'ly Lot Fence ✓			
+10		4.4	385.1

389.48

6+22			
W -0.5 = W'ly Power Pole ✓			
6+27.5			
W -2.1 = S'ly Garage N Entrance			
6+50.67 = S.A E+W Alley			
W		4.0	385.5
℄		3.99	385.49 gone
E		3.9	385.6
+0.4 = N'ly Board Fence			
TP	4.78	390.47	3.79	385.69

East of West Alley

390.47 @ Ford

0+12 = EC & 32nd St		
N on Paving	5.52	384.95
℄ " "	5.52	384.95
S " "	5.62	384.85
0+40 = E.L. 32nd		
-0.5 = Nly Wire Fence ✓		
S Top Cb	4.87	385.60
S Gutter on Paving	5.06	385.41
℄ " "	5.15	385.32
N " " "	5.10	385.37
N Top Cb	4.89	385.58
0+19		
S+0.9 = Sly Power Pole ✓		
S-0.4 = Ely Wire Fence = Nly Lot Ly Fence ✓		
0+25		
-10	5.0	3855
N	5.0	3855
℄	5.2	3853
S	5.1	3854
+5	4.9	385.6

390.47

0+50		
-1.9 = Nly 1.5 Conc Walk ✓ = N End Walk	4.70	385.77
S	5.0	3855
℄	5.1	3854
N	5.1	3854
+10	5.2	385.3
0+53		
N-0.1 = Nly Wire Fence ✓		
0+85		
N-0.1 = Ely Wire Fence ✓		0+89
N-0.1 = Nly Conc Apron	5.01	385.46 ✓ S-0.8 = Ely Lot Ly Fence
0+96		
-2.1 - ℄ Do Garage Conc Floor	4.82	385.65 ✓
-0.1 = Sly Conc Apron	5.01	385.46 ✓
N	5.0	3855
℄	5.1	3854
S	4.8	3857
+2.1 = Nly 2' Conc Walk	4.77	385.70 ✓
1+05		
S-5.3 = Nly Do Garage Conc Floor	4.72	385.73 ✓
S-2.0 = Nly Conc Apron Ely 2' Conc Walk	4.80	385.67 ✓

390.47

1+23

S-5.2 = Fly Do Garage Conc Floor	4.77	385.70	✓
S-1.7 = Fly Conc Apron	4.92	385.55	✓
S+0.8 = Sly Power Pole	✓		

1+25.1 = WL, N+S Alley

S	5.0	385.5	
℄	5.0	385.5	
N	4.9	385.6	
+0.1 = Nly Power Pole	✓		
+1.0	5.0	385.5	

1+29

N-5.4 = Nly 3 Car Garage Conc Floor	4.67	385.80	✓

1+40.1 = EL, N+S Alley

N	4.7	385.8	
℄	4.7	385.8	
S	4.8	385.7	
+0.1 = Nly Board Fence	✓		

1+56

N-5.4 = Fly 3 Car Garage Conc Floor	4.80	385.67	✓

390.47

1+59

N+1.2 = Nly 3' Conc Walk	4.91	385.56	
N on 3' Conc Walk	4.81	385.66	✓
TP 8.98	389.70	4.75	385.72

1+66

-10'	4.6	385.1	
S	4.4	385.3	
℄	4.4	385.3	
76.5 = Sly Conc Apron	4.39	385.31	
N on " "	4.30	385.40	
+0.7 = Nly 5 Car Garage Conc Floor	4.20	385.50	✓

1+77

S-0.1 = Fly Board Fence			

1+90

S-4.8 = ℄ Garage & Opening Conc Floor	4.48	385.22	

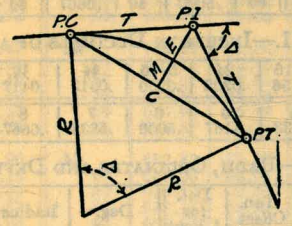
2+01

-0.7 = Sly 5 Car Garage Conc Floor	4.27	385.43	✓
N on Conc Apron	4.38	385.32	✓
+0.6 = Sly Conc Apron	4.44	385.26	
℄	4.4	385.3	

	389.70		
+7.4 = Wly Board Fence			
S	4.3	385.4	
+10	4.8	384.9	
	2+11		
N+0.5 = S+Ely Conc Apron	4.44	385.26	✓
N-0.9 = Ely 5' Car Garage Conc Floor	4.30	385.40	✓
= Wly Picket Fence			
	2+36		
-5'	4.8	384.9	
S	4.6	385.1	
+2	4.0	385.7	
Δ	4.0	385.7	
N	4.1	385.6	
= Ely Picket Fence			✓
+0.7 Wly Stucco Garage, F Entrance			
	2+40		
S +0.3 = Sly Power Pole	✓		
	2+44		
S -0.4 = Ely Board Fence	✓ = Wly Wire Fence		
	2+56		
N -7.4 = Sly Conc Apron	3.95	385.75	✓
N -0.8 = Ely Stucco Garage			✓

	389.70			
N	4.6	385.1		
Δ	5.0	384.7		
76	4.5	385.2		
S	4.8	384.9		
+5	4.7	385.0		
	2+65.20 = Wly Bancroft			
-0.5 = Ely Wire Fence				
S Top Cb	5.43	384.27		
S Gutter on Paving	5.57	384.13		
Δ " "	5.65	384.05		
N " " "	5.48	384.22		
N Top Cb	5.36	384.34		
	2+77.2 = Wcb Bancroft			
N on Paving	6.35	383.35		
Δ " "	6.39	383.31		
S " "	6.48	383.22		
TP	5.70	390.31	5.09	384.61
BM	4.54	385.77		S.E.B.P. Adams St & 32nd St 385.80

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES



CURVE FORMULAS

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

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

Middle ordinate=M= R(1—cos. $\frac{\Delta}{2}$) (5) =R vers $\frac{\Delta}{2}$ (6)

External=E=T tan $\frac{\Delta}{4}$ (7) =R ÷ cos. $\frac{\Delta}{2}$ —R (8)=R exsec $\frac{\Delta}{2}$ (9)

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

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.=Sta. 161 +60.35 to find Sta. of P. C. and P. T. Δ=62° 10′ D=8° 20′. From Table IV for 1° curve T=3454.1 and ÷8⅓=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—Sta. P. C.=54.50, hence offset=7.27 (54.50 ÷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 ÷(2 x 688.26)=2.16 ft.

Deflections.—Deflection angle=½ D for 100 ft., ¼ D for 50 ft., etc. For c ft.=(in minutes) .3 x C x D° or=defl. for 1 ft. from Table III x C. For Sta. 158 of above curve=.3 x 54.5 x 8⅓=136.2′ or 2° 16.2′, or=2.50 x 54.5=136.2′ from Table III. For Sta. 159 deflection angle=2° 16.2′ +8° 20′ ÷2=6° 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° curve E=960.6 for 8° 20′=960.6 ÷8⅓=91.27 and from Table V correction=.10 or E=91.37 ft. Or suppose Δ=32° and E is measured and found to be 42 ft. What is D? From Table IV E=230.9 and ÷42=5.5 or D=5° 30′.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½

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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