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.

This Field Book is manufactured 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.

Grader Community Center Tennis & Volley Ball 1-3
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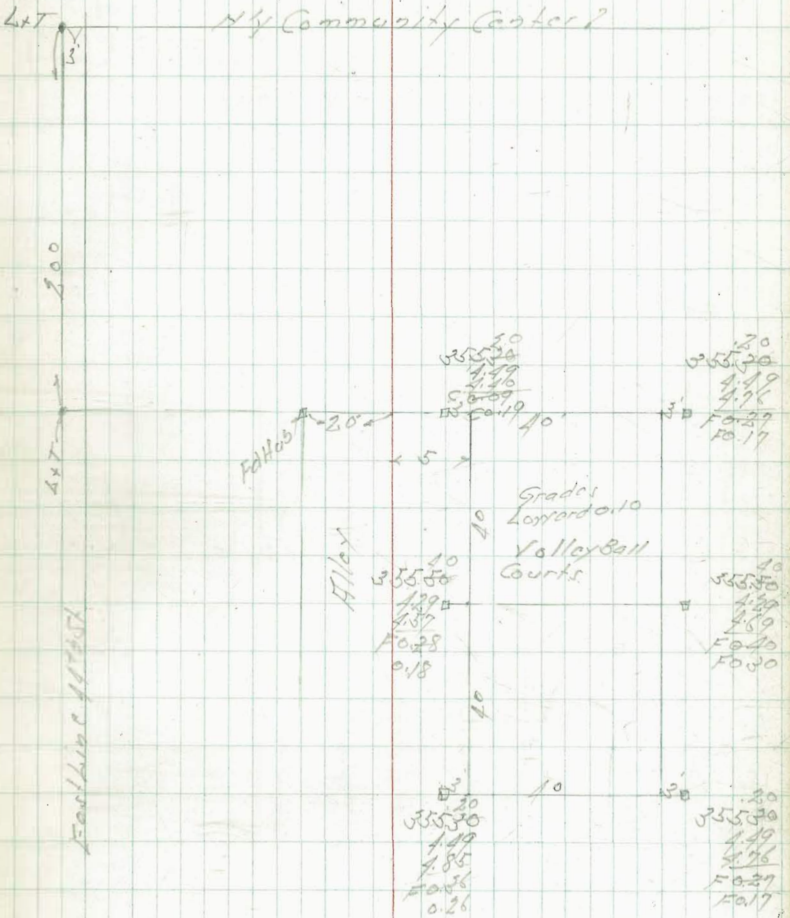
Volley Ball Courts Community Center
Landis + 44th St.

BM	6.28	359.79	353.51	N.N.B.P. Landis + Highland 1726.13



Grades Tennis Courts Landis & Hall Sts.

Shuffleboard Court BM 6.73 360.24 353.51

Tennis Court BM 6.87 360.38 353.51

N.W. Cor. Landis & Highland 1726-13

6.79 360.30 353.51

Fire Hydrant 355.79 East 39 Tennis Court

Nail

355.60 4.64 F 0.51

355.60 4.64 5.06 F 0.42

Shuffleboard Courts

4 Courts

355.60 4.64 6.14 F 1.47

355.60 4.64 5.34 F 0.70

Nail

For Grades Page 44

Shuffleboard Sept. 7. 48 S. Sloan Smith Stuart Cross Sec. 1726-13 Gargi " " 1675-20

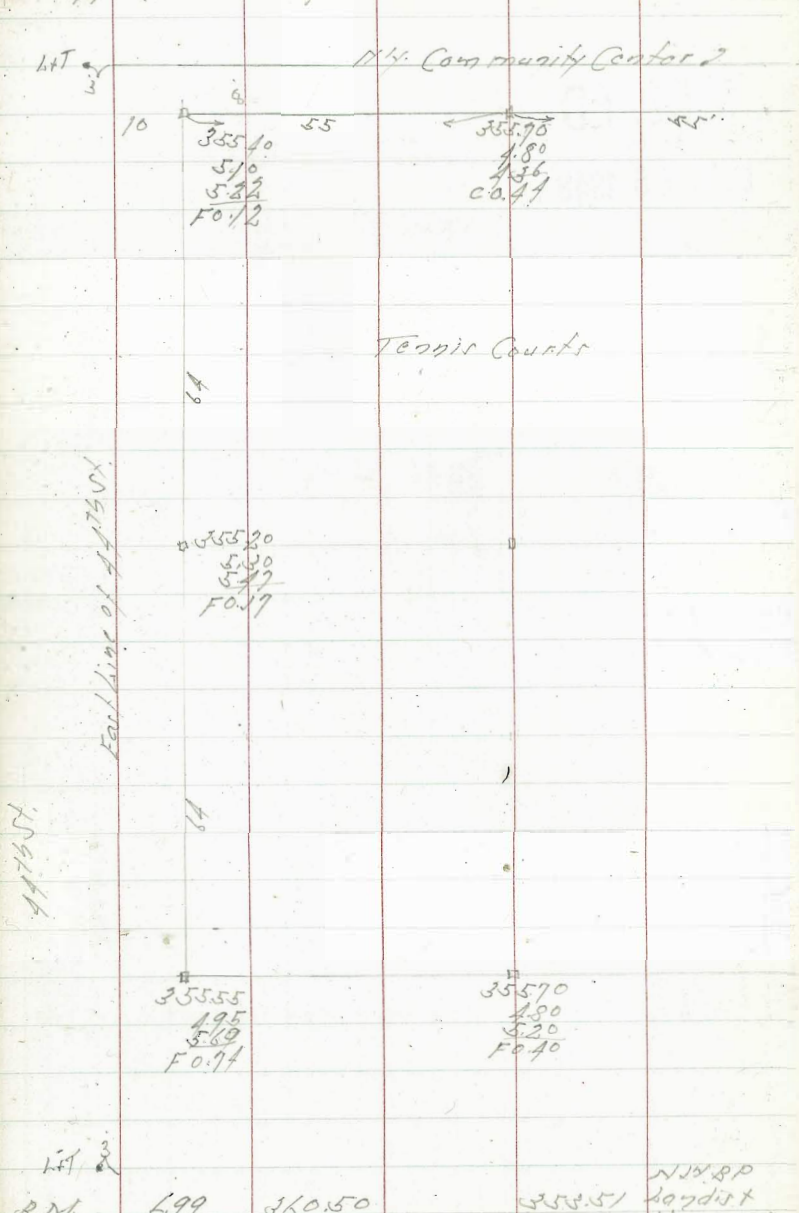
Tennis Court Feb. 27. 48 S. Sloan Fike Smith Johnson W.O. 60180

INDEXED WK DEC 15 1948

Hi Community Center

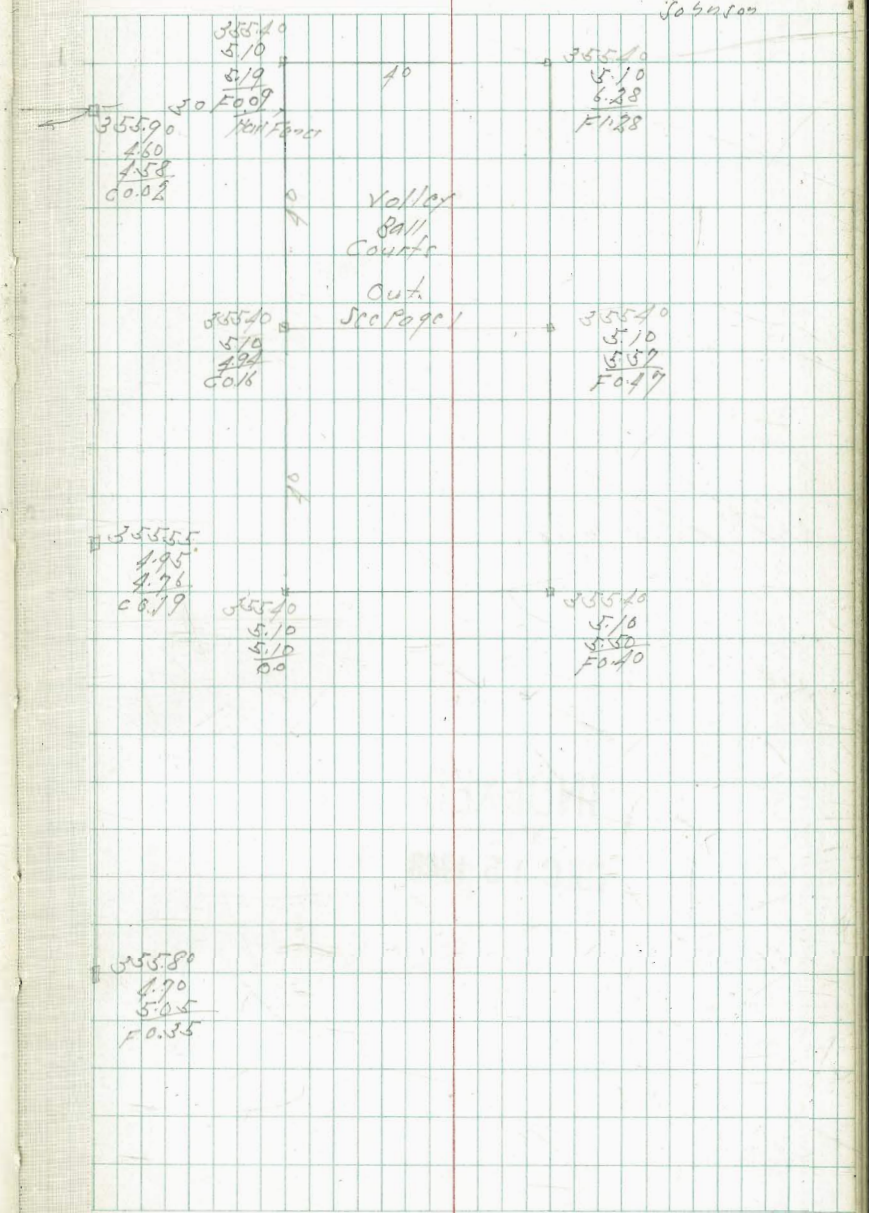
2

Grades Tennis Courts + Volley Ball Courts
44th St North of Landis



March 1-18
Sisson
Spring
Allen
Sobinson

3



Rosecrans

Paving Grader Keon St.
Rosecrans St. to 1st. Nov St.

4

Locust

Evergreen

0+25 12.30 11.80 12.30 12.80 (12.75 Const)

0+50 = Gutter 10.73 6.95 7.00 7.21 7.45 10.25

0+27 7.27 6.69 7.16 7.77

0+00

0+25 12.30 11.80 12.30 12.80

0+25 26.00 25.50 26.00 26.50

0+00 23.90 23.40

2+75 21.10 20.60 21.10 21.60 (21.90)

29.26 I

Paving Grades Keats St
Roscrans St to Willows

Gutter
B.M. 1.90 46.28 44.38 STAND WILLOWS Keats

Paving 6.82 51.20 44.38

Willows

0+70 44.20 43.50 2.68 44.68 1.30 45.35

43.55 43.05 8.74 8.48 8.45 43.25 44.50

0+75 42.80 42.30 42.75 43.88 43.50 43.38

2+60 41.82 41.35 41.94 41.61 41.85 42.35

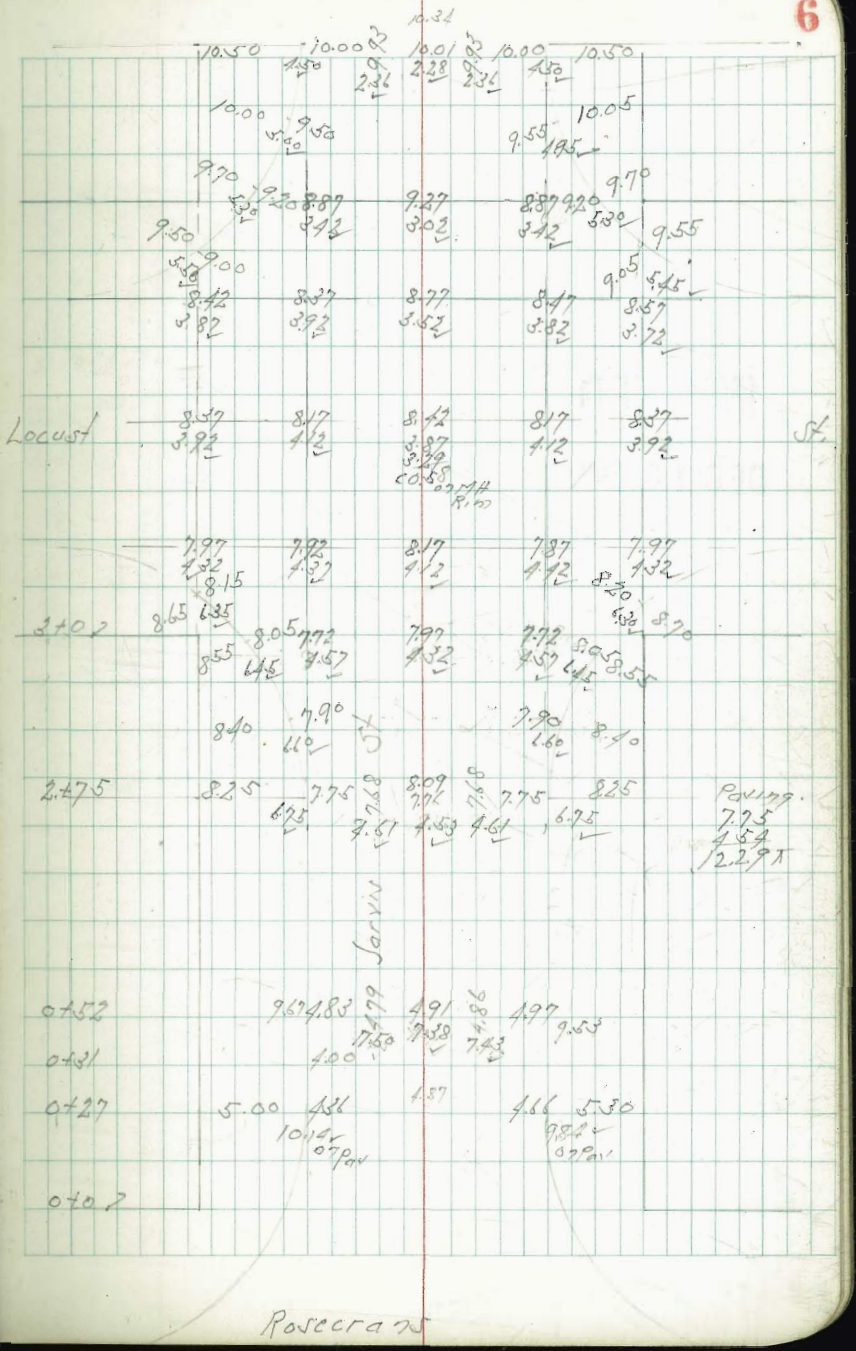
0+25

Paving Grades Sarvis St.
Rosecrans St. to Willow St.

					Lowered S.E. Top F Hyd Locust & Sarvis 238.70
BM	2.06	14.50		12.44	
TP	12.35	26.71	0.14	14.36	
Paving					SW. 7 x 5 Disc Rosecrans & Willow
BM	6.79	10.08		3.29	
TP	8.91	16.63	2.36	7.72	
					S.E. Top F Hyd Locust & Sarvis
BM			5.88	10.75	
					Used Gutter Grades for Paving
BM	5.57	16.32		10.75	

Paving Grades

May 5-48
Sisson
Smith
Allen
Johnson



Rosecrans

Paving Graders Jarvis + Evergreen

Paving 29.58 T Pavg

29.87 T Pavg

Evergreen

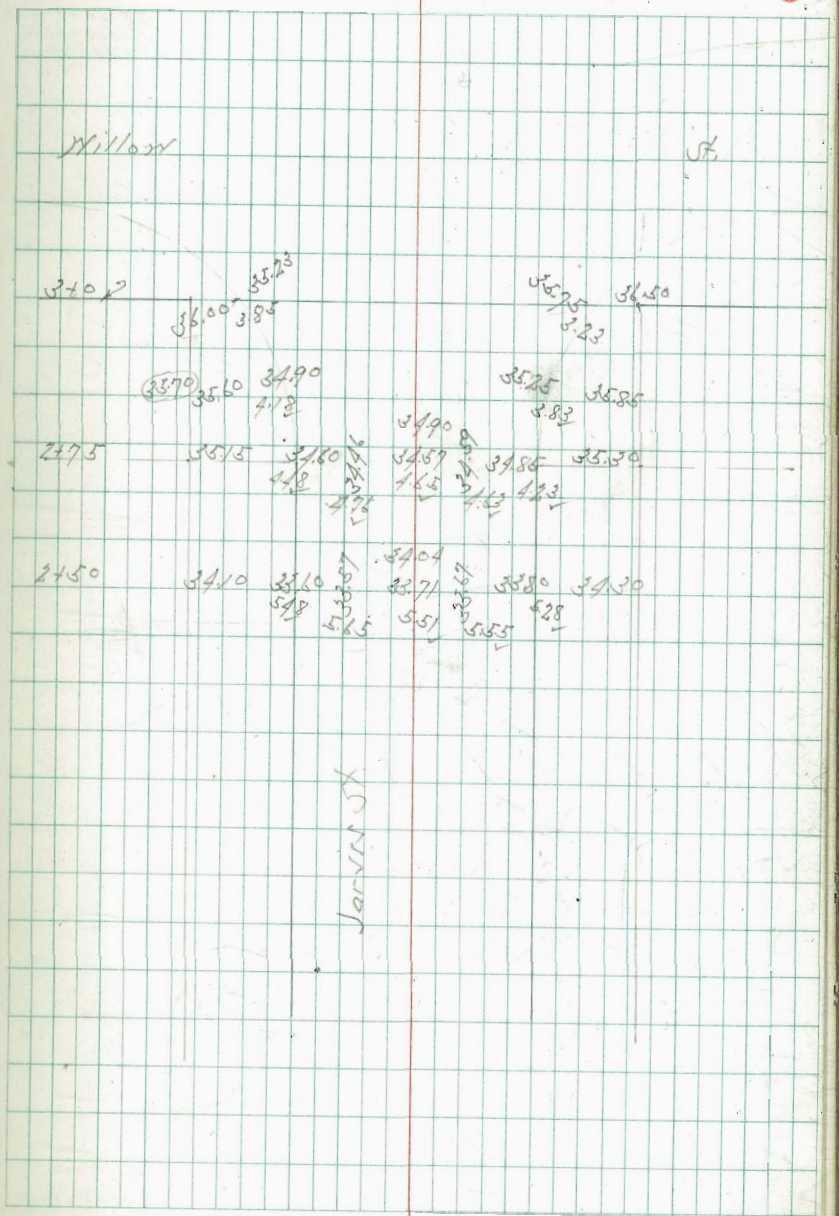
Ingelow

Jarvis St.

0+25 — 1+75 — 2+25

Jarvis St.

BM	0.18	39.08		38.90	Top of Hyd
	0.32	39.22		38.90	



Paving Grades Evergreen

BM	5.37	29.87		24.50	SE Scanton Lot Evergreen Bungalow
Paving	5.06	29.56		24.50	

Hugo St.

2+00 25.40 24.89 498 25.32 3.15 27.35

25.70 25.20 467 26.58 3.39 27.08

1+75 25.90 25.10 449 25.56 3.94 25.96 3.60 26.29 3.41 26.58 3.37 27.00

1+55 25.89 out 26.89

1+40 Gutter Bk 25.05 25.39 434 25.69 3.87 26.30 3.65 26.86 At Const.

0+85 25.20 24.70 5.12 488 25.54 25.21 4.35 433 25.70 4.18 26.20

25.10 24.60 527 25.95 4.12 26.35

0+40 24.82 24.32 553 25.85 4.03 26.40

Hugo/Ivy St.

Alley Block 1 Chester Park Add. Water Grader
Polk Ave to Orange Ave 8th 46th Main

		Lt. West		Rt. East	
			S		
1+51	Lt.	353.22	4.15 3.64 c0.51		
				S	N
1+32	Rt.			352.98	4.39 4.33 c0.06 / 4.39 4.11 c0.28
1+03	Lt.	353.23	4.04 3.63 c0.41 / 4.04 3.33 c0.71		
			S		
0+98	Lt.	353.30	4.07 3.65 c0.42		
				S	N
0+91	Rt.			352.92	4.15 4.52 / 4.15 4.15 0.00
TP +76		4.00	357.37 0.83 52.91 4.23 F0.30	353.37	F0.11
0+74	Lt.	0.41	352.86		
+72			52.79		0.85 1.57 F0.84
0+73	= Corner Lt.		346.82		6.92 1.80 c5.12 1.35
				351.50	2.21 1.76 c0.48 9.6 +11
0+42	Rt.			351.41	
0+32			351.10	351.32	2.44 2.03 c0.41 / 2.42 1.74 c0.68 96 +10
0+30	Lt. out		350.97		
+28			350.80		2.91 2.23 c0.72
+03				347.84	5.90 4.92 c1.18
0+01	Rt.				
0+0	= 11 Polk Ave.			347.48	6.26 6.34 on Rev.
TP	5.42	353.74	8.87	348.32	N.W. 1/4 T Polk + 46th
BM	3.25	357.19		353.94	N.W.R.R. Orange Ave + 46th St.

Stakes Set
07 Property Lines
2' N + 2 South of Lateral

W.O. 60138

Apr 15-48
Survey
Smith
File 7
Johnson

		Lt. = W		Rt. = E	
			S		N
3+81	Lt.	350.94	6.43 6.47 F0.04 / 6.43 6.61 F0.18		
3+12	Rt.			350.88	6.49 2.58 F0.91 / 6.49 2.40 F0.91
3+0	Lt.	351.01	6.36 1.09 c0.49 / 6.36 6.29 c0.07		
2+84	Rt.			351.03	6.34 6.34 0.00 / 6.34 6.65 F0.31
2+48	Lt.	351.96	5.11 5.06 c0.61 / 5.11 5.03 c0.58		
2+32	Rt.			351.94	5.43 4.93 c0.46 / 5.43 4.97 c0.46
2+02	Lt.	352.78	4.59 5.76 c1.13 / 4.59 5.76 c1.13		
1+76	Rt.			352.82	4.55 4.81 F0.26 / 4.63 4.77 F0.14

357.37

Water Laterals Alley Block 16 Exeter Park Add

		Lt. W		Rt. E	
TP	5.28	355.99	6.66	350.71	
5+03	Rt.			350.49	6.88 6.88 6.61 6.56 CO.27 CO.32
4+71	Lt.	350.66	6.71 6.71 6.96 6.84 FO.25 FO.13 .95		
4+67	Rt.			350.57	6.80 6.90 7.25 7.00 FO.45 FO.10
4+21	Lt.	350.76	6.61 6.61 6.68 6.74 FO.07 FO.13		
3+95	Lt.	350.81	5.56 6.56 6.79 6.86 FO.23 FO.30		
3+90	Rt.			350.72	6.15 6.15 7.50 7.55 FO.85 FO.90
3+67	Rt.			350.77	S N 6.60 6.60 7.77 7.72 FH.17 FH.12
3+56	Lt.	350.89	S. N 6.48 6.45 6.70 6.67 FO.22 FO.19		
		355.37			

BM			4.08	353.91	NW BP Orange Mkr 4 Alley 353.91
5+43	Rt.			350.42	S N 5.57 5.57 5.05 1.82 CO.52 CO.75
5+38	Lt.	350.64	5.35 5.35 5.14 5.03 CO.21 CO.32		
5+32 = NW BP Meters on Lt.		350.58	5.41 5.41 5.14 5.05 CO.27 CO.36		
5+27 = SW BP Meters on Lt.		350.56	5.43 5.43 5.18 5.05 CO.25 CO.38		
		355.99			

Culvert Grades Churchward St & Santa Margarita St.

1+44 = HW 18" Culv.				165.00	16.58 14.64 c1.94
1+01				166.80	14.78 11.97 c2.81
0+64				168.60	12.98 10.25 c2.73
0+32				170.04	11.54 9.69 c1.85
0+0 = HW Existing 18" Culv.				171.48 10.08 89°FL.	10.10 5.64 c4.44
TP	3.78	181.58	12.45	177.80	
BM	0.80	190.25		189.45	Top of Church Wall Southeast

April 8-48
S. 55°07' E.
Allen
Johnson

12

Stakes offset 6' Rt.

1+71.72 = Fd Hub. M.O. 21028

Plan 5582 B

1+44

Santa Margarita St.

Culvert to be Constructed

77° 14'

Fd Pipe & Disc

Fd Pipe

20.81

0+0

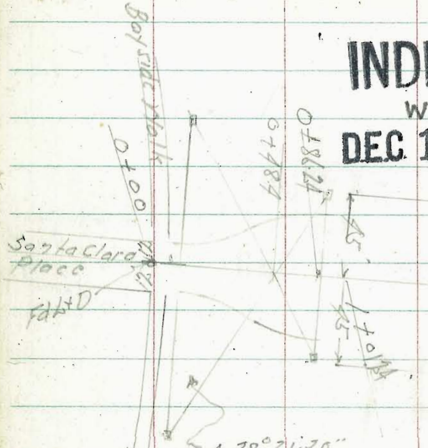
Fd Hub

Exist 18" Culvert

3.3

Church Ward St.

Paving Grades Santa Clara Point
Mission Beach



Δ28°21'30"
Cb. R 75'
T 18.95
L 37.12

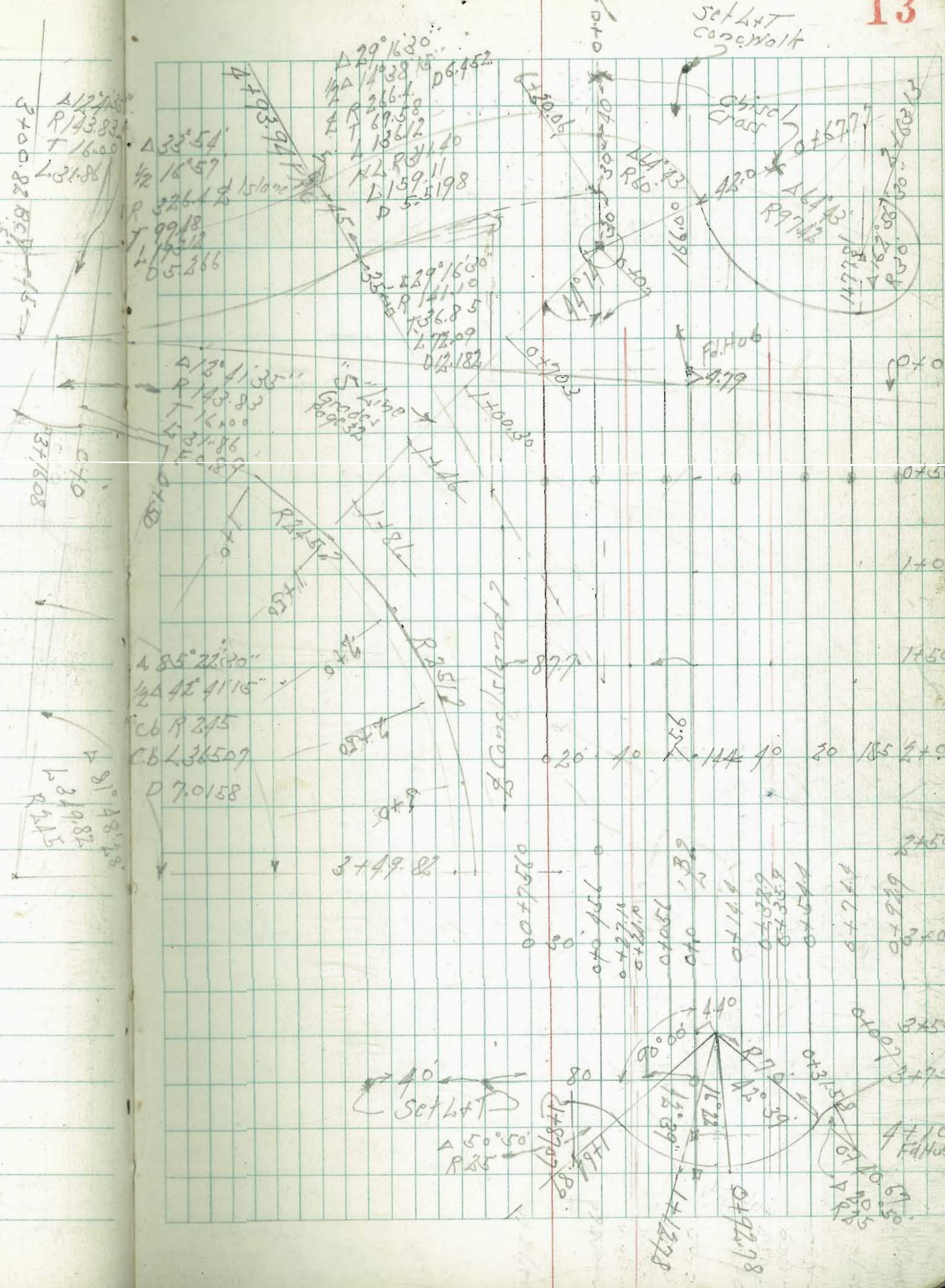
Δ16°15'37"
R 250'
T 35.71
L 70.95

April 14-48
Sisson
Smith
Allen
Johnson

Cross Sections
1838-1

W.O. 60242

July 29-48
Sisson
Smith
Becker
Lee



Paving Grades Santa Clara Point

East & West Roadway

		North	Sub Grade	South
2+0		6.23 / 1.64 / 6.23 / 0.00	CL 3.27 5.22 / 2.54 F 0.62	6.23 / 1.64 / 7.87 / F 1.64
1+75		6.45 / 1.42 / 6.45 / 6.00	CL 3.05 4.82 / 1.22 5.45 / F 0.63	6.45 / 1.42 / 7.75 / F 1.30
1+50		6.71 / 1.16 / 6.65 / C 0.06	CL 2.79 5.08 / 2.06 6.33 / F 1.25	6.71 / 1.16 / 7.39 / F 0.68
1+25		7.03 / 0.84 / 6.31 / C 0.72	CL 2.47 5.40 / 1.74 6.22 / F 0.82	7.03 / 0.84 / 7.53 / F 0.50
1+0.24		7.39 / +0.48 / 7.13 / C 0.26	CL 2.11 5.76 / +1.38 5.91 / F 0.20	7.39 / +0.48 / 7.83 / F 0.44
0+86.24	W. Ly Island FCR+L	+0.73 / 7.14 / 6.82 / C 0.32 / 7.14 / 7.36 / F 0.22	CL 1.86 6.07 / 1.13 6.27 / F 0.26 / 6.01 / 6.14 / F 1.13	7.14 / +0.73 / 6.89 / C 0.25
0+50.62	PRCR+L	+0.24 / 7.63 / 7.38 / 6.00 / 7.63 / 7.81 / F 0.18	+0.11 7.43 / 7.30 / C 0.13	+0.24 / 7.63 / 7.38 / C 0.25
0+15	B.C.R.+L+	−0.35 / 8.22 / 8.28 / F 0.06	−0.35 / 8.22 / 7.99 / C 0.23	−0.35 / 8.22 / 8.04 / C 0.18
0+0	= W.L. Bayside Walk			
BM	8.82	7.87	−0.96	L+0.15 C Santa Clara & W.L. Bayside Sect.

Avg. 8-48

45'N | North 89°W | 21'N | ℄ Gutter | South 5 Sub 7 Smith 39'W Marker

Sub	Sub			Gorber
1.86 / 6.01	2.34 / 5.53	2.71 / 5.16	2.34 / 5.53	1.86 / 6.01
1.64 / 6.23	2.12 / 5.75	2.49 / 5.38	2.12 / 5.75	1.64 / 6.23
1.38 / 6.49	1.86 / 6.01	2.23 / 5.64	1.86 / 6.01	1.38 / 6.49
1.06 / 6.81	1.54 / 6.33	1.91 / 5.96	1.54 / 6.33	1.06 / 6.81
0.70 / 7.17	1.18 / 6.69	1.55 / 6.32	1.18 / 6.69	0.70 / 7.17
C'l Hedge 0.95 / 6.92		Gut. 13.0 / 6.57		C'l Hedge 0.95 / 6.92
	6.5+0.33 / 7.55	Sub +0.44 / 7.43		+0.33 / 7.55 C'l
	−0.35 / 8.22	Sub −0.35 / 8.22		−0.35 / 8.22

7.87

East + West Roadway — Santa Clara Point

		North		Cb		South
4+50	13°05.58'	3.68	4.19 4.72 F0.54	5.31 4.88	2.56 3.32 F1.16	
4+30	11°20.26'	3.56	4.31 4.37 F0.06	5.19 4.46	2.18 3.82 F1.14	
4+10	9°34.91'	3.42	4.45 4.04 c 0.41	5.05 4.32	2.82 3.99 F0.57	
3+90	7°49.6'	3.25	4.63 4.18 c 0.45	4.88 4.45	2.99 3.90 F0.81	
c 56 N 169.3						
2+70	6°04.3'	3.08	4.79 4.42 c 0.37	4.71 4.28	3.16 3.85 F0.69	
c 56 N 24.65						
2+41 = Ely Island	3°31.59'	2.82	3.50 4.55 c 0.50	4.46 3.93	3.41 4.11 F0.70	
c 50 N 34.00						
3+0082 BCH		2.50	5.37 5.62 F0.25	Subs. 4.47 3.40	4.58 F0.11	
2+85 = Ely Island		2.39	5.48 4.74 c 0.99	4.99 3.26	3.88 4.52 F0.64	
2+50		2.06	5.81 4.95 c 0.86	4.69 3.96	4.18 4.70 F0.52	
2+15	07 South - Δ in Planing					2.02 6.99 8.64 F1.65
		7.87				90 LT

45 N — Sub 39 N — Sub 21 N — Gutter 21 S — 39 S — 45 S

	3.90 3.97	4.38 3.49	4.75 3.42	
	3.78 4.09	4.26 3.61	4.13 3.24	4.60
	3.64 4.13	4.19 3.75	4.49 3.38	
	3.47 4.40	3.95 3.92	4.32 3.53	
	3.30 4.37	3.98 4.09	4.45 3.72	
	3.05 4.82	3.53 4.34	3.90 3.53 4.97 4.34	c K 5.43 — 6.93 1.50 8.43
	2.72 5.15	3.20 4.62	Subs. 3.40 3.20 4.47 4.62	? 6' off edge 3.01
	2.58 5.29	3.06 4.81	3.43 3.06 4.44 4.81	6' off edge 2.95 4.92
			3.28 4.69	6' off edge
	2.28 5.49	2.76 5.11	3.13 2.76 4.74 5.11	39 S
7.87	2.24	2.92 4.95		6' off edge 2.61 5.24 — 2.60 5.77

East & West Roadway

		North Sub Grade	℄	South Sub Grade
BM				Top F Hyd 2.6 L of 5+38 6.97
	For East Page 81			
1+53.05 = EC.	14°38.25'			
35.68				
6+17.37	11°21.35'	Cb. 3.90 5.93 5.02 3.87 C: 0.21	Cb. 5.33 3.80 4.60 0.0	8°35' 5+66.04 Flat Island 14°38.25'
C = 4912 St Line				
48.39				
5+68.98	6°54.21'	Cb. 4.46 4.67 6.48 3.73 F 1.81	Cb. 5.39 3.74 4.90 4.66 F 1.16	4°50 11°22.9'
℄ 27.60				
27.19				
5+11.79	4°24.13'	Cb. 4.54 4.59 5.26 3.81 F 1.37	Cb. 5.44 3.69 5.03 4.71 F 1.34	4°30 7°19.3'
C = 27.05				
26.64				
5+75.15	1°57.08'	= W.H. Cb. Cb. 4.56 4.57 6.19 5.83 F 1.62	Cb. 5.46 3.67 5.05 4.73 F 1.38	5+10 3° 15.6'
C = 21.53 St Line				
C = 21.21				
℄ L Sta 4+93.94 ℄ Sta	16°57' P.R.C.	5.32 5.93 3.81 F 0.61	Cb. 5.44 3.69 5.06 4.71 F 1.37	℄ Sta 4+93.94
4+70	14°50.9'	5.37 5.96 6.76 F 0.98	5.39 3.74 5.23 4.66 F 1.49	Top F Hyd
TP	2.16	9.13	0.90	6.97
		7.87		

45' N	39' N	21' N.	℄	21' S
15' N Gutter	39' N Sub	21' N Sub	℄ Gutter	
3.48 4.39 ✓	3.52 4.34 +0.05	4.01 3.86 ✓	4.77 3.10 ✓	
3.90 3.97 ✓	3.95 3.93 ✓	4.43 3.44 ✓	4.83 3.04 ✓	
3.98 3.89 ✓	4.03 3.84 ✓	4.51 3.36 ✓	4.88 2.99 ✓	
4.00 3.87 ✓	4.05 3.82 ✓	4.53 3.34 ✓	4.90 2.99 ✓	
	4.03 3.84 ✓	4.51 3.36 ✓	4.88 2.99 ✓	4.80 ✓
	3.98 3.89 ✓	4.45 3.42 ✓	4.83 3.04 ✓	
	7.87			8.96 ✓

South West Curve

			SubGrade R 251	SubGrade R 248	
3+49.82	EC 10°54.24		2.85 / 6.16	3.04 / 2.83	5.98 / 5.73 / C 0.24
+25			5.94 ✓		
3+0	35°04.74 ✓	5.73 / 5.73 / 0.0	3.28 / 5.73 ✓	3.16	5.85 / 6.02 / F 0.17
+75			5.68 ✓		
2+50	29°13.95 ✓	5.63 / 5.78 / F 0.15	3.38 / 5.63 ✓	3.26	5.75 / 6.15 / F 0.40
+25			5.61 ✓		
2+0	23°23.16 ✓	5.59 / 5.47 / C 0.12	3.45 / 5.54 ✓	3.32	5.69 / 5.99 / F 0.30
+75			5.52 ✓		
1+50 NE Ramp	17°32.67 ✓	5.45 / 5.45 / 0.00	3.56 / 5.45 ✓	3.34	5.67 / 5.74 / F 0.07
+25			5.54 ✓		
1+0	11°41.58 ✓	5.63 / 5.88 / F 0.25	3.38 / 5.63 ✓	3.27	5.74 / 6.31 / F 0.57
+75			5.68 ✓		
0+50	5°56.79 ✓	5.77 / 5.99 / F 0.22	3.27 / 5.74 ✓	3.12	5.88 / 6.86 / F 0.97
C = 48.9° on Station Line 5 South +25			5.85 ✓		
C 49.91 on Pav. Line					
0+00 = PRC.		5.77 / 5.55 / F 0.58	3.04 / 5.97 ✓	2.94	5.87 / 7.05 / F 1.18
0-31.86 = PRC.			2.90 / 6.11 ✓	2.79	6.22 / 6.53 / F 0.31 — 6.27 / 7.24 / F 0.97
0-67.33 = Δ 26° R Curve			2.70	2.59	6.42 / 6.90 / F 0.48 — 6.47 / 6.71 / F 0.24
					Top Fwd
BM	2.01	9.01		6.97	

Paving Girder Sta End Santa Clara Point

Alignment Page 13

Stakes offset 5' South of Paving Edge Aug 19-28

	SubGrade L/N of Sta	SubGrade Garber Sta of Pav.		
				Sta 5+00 Sta 4+75 Sta 4+50
+89.07 = EC		2.80	5.84 / 5.40	C 0.44
+64.89 PRC	2.99 / 5.65 ✓	2.94	5.70 / 5.73	C 0.03
+0 8.89 / 26.05	5.66 ✓			
1+12.78	2.97 / 5.67 ✓	2.94	5.70 / 5.54	C 0.16
20				
+92.78 = ℄	2.97 / 5.67 ✓	2.94	5.70 / 5.53	C 0.17
+66.72 / 26.06	5.68 ✓			
+40.67 PRC	2.94 / 5.70 ✓	2.91	5.73 / 5.58	C 0.15
+31.58 BC ℄	2.94 / 5.70 ✓	2.91	5.73 / 5.39	C 0.34
0+0 = SF Cor. = 3+73 to North	2.89 / 5.78 ✓	2.86	5.78 / 5.46	C 0.68
BM 1.67	8.64	6.97	Top Fire Hyd	

Paving Grades Santa Clara Point
Parking Area North & South Strip

		92.9E 86.9E 74.4E		54.4E		34.4E
1+50	5.37 5.72 F0.45	3.74	3.77 5.24	3.82 5.19	3.90 5.11 4.79 C 0.32	3.98 5.03
1+00	5.07 5.29 F0.22	3.94 5.07	3.97 5.04	4.02 4.99	4.10 4.91 4.70 C 0.21	4.18 4.83
0+50	5.17 5.73 F0.56	3.84 5.17	3.90 5.11	4.03 4.98	4.27 4.74 4.74 0.00	4.36 4.65
0+00	5.80 5.78 F0.02	3.21 5.80	3.29 5.72	3.46 5.55	3.96 5.05 4.53 C 0.57	4.24 4.77 OUT
0-20	6.07 5.63 F0.44	2.94				
~~0-50~~ 41 Rod H.	5.96 5.48 F0.41	3.06				
0-36.54	6.17 6.17 Rock	2.84				
0-100						
BM	2.04	9.01		6.97	Top of F.H. 2.16 H 5.68	

14.4E	4 OUT	25.6W		25.6W 45.6W		65.6W
4.06 4.95		4.14 4.87	4.87 5.04 F0.17	4.22 4.79	4.30 4.71	4.71 4.82 F0.16	4.38 4.63
4.26 4.75	5.26 5.07 C 0.19	4.34 4.67	4.67 4.72 F0.05	4.42 4.59	4.50 4.51	4.51 4.99 F0.48	4.58 4.43
4.46 4.55		4.54 4.47	4.77 4.70 F0.23	4.62 4.39	4.70 4.31	4.31 4.42 F0.11	4.78 4.23
4.52 4.49	5.00 5.21 F0.21	4.70 4.31	4.31 4.77 F0.46	4.50 4.21 OUT	4.90 4.11	4.11 4.27 F0.16	OUT
3.68 5.33		4.94 4.07 4.94	4.94 5.10 F0.16 ?	4.36 4.65	4.46 4.35	4.35 4.24 C 0.09 3' Frost	4.81 4.20
					3.87 5.14 F0.25	5.14 5.39	4.09 4.92

9.01

North + South Strip

	East	929E	849E, 749E	549E	34.4	
3+72		2.86				
3+50	6.07 5.75 c 0.32	2.94	2.97 6.04	3.02 5.99	3.10 591 5.91 out c 0.77	3.17 584 out
3+0	5.87 5.84 c 0.26	3.14	3.17 594	3.22 5.79	3.30 5.71 5.76 c 0.55	3.38 5.63
2+50	5.67 5.83 F 0.16	3.34	3.37 5.64	3.42 5.59	3.50 5.51 4.85 c 0.72	3.58 5.43
2+0	5.47 5.88 F 0.33	3.54	3.57 5.44	3.62 5.39	3.70 5.31 4.58 c 0.73	3.78 5.23
		9.52 9.01				

14.4E	2	0.56	25.6	45.6		65.6W
3.25 5.76 out	3.30 5.71 out	5.71 5.08 c 0.63	3.37 574 out	3.45 5.96 5.83 5.76 c 0.43 out		3.04 597
3.46 5.55	3.54 5.47	6.06 5.67 c 0.42	5.47 5.45 c 0.04	3.57 3.60 5.43 5.41	5.41 5.41 0.00	3.78 5.73
3.66 5.35	3.74 5.27	5.42 5.48 F 0.01	3.80 5.21	3.87 5.14	5.14 5.14 0.00	3.73 5.28
3.86 5.156	3.94 5.07	5.66 5.49 0.17 5.07 5.16 F 0.09	4.09 4.99	4.10 4.91	4.91 5.03 F 0.12	4.18 4.83
		9.01				

Curb Grades East Side of Union St.
Island Ave. to 200' North

			Curb	
3+0 = Sly Market			11.50	5.81
2+0 End			9.33	7.98
+55			8.36	8.95
1+10		6.71	7.38	9.93
+90		6.28	6.95	10.36
+73 = Nly Drive		5.90	6.57	10.74
+50		5.41	6.08	11.23 11.72 F0.49 on Cen Drive
+36 = Sly Drive		5.19	5.82	11.49
+17 = Nly Drive		5.04	5.68	11.65
0+0 = N.L. Island Ave		4.93	5.60	11.71
BM 6.38	17.31		10.93	Sly BP Market + Union

June 9-48
Sisson
Smith
Becker

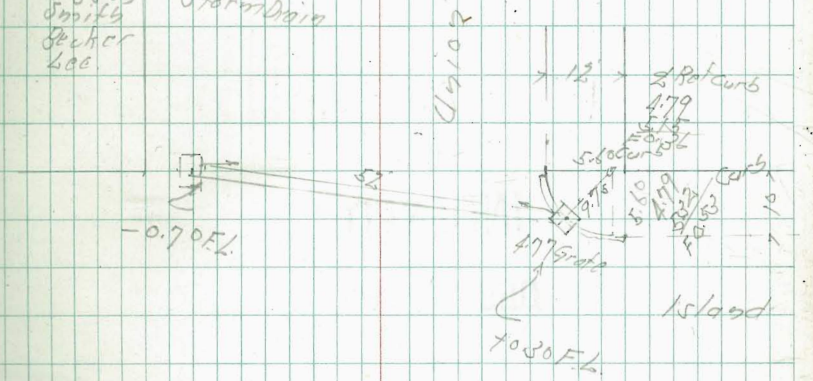
Stakes offset 2' Back of Face of Curb

N.Q. 60268

July 1-48
Sisson
Smith
Becker
Lee

Storm Drain

Cross Sec #1842



BM	4.79	10.39	5.60	on Stub 0+0 N.L. Island
0+0 = Prop Cb Inlet			+0.30	10.09 4.79 C5.30
0+26			6.00	10.39 5.04 C5.35
0+52 = Exist Clean Out			-0.70	11.09 5.53 C5.56 on Rim Clean Out

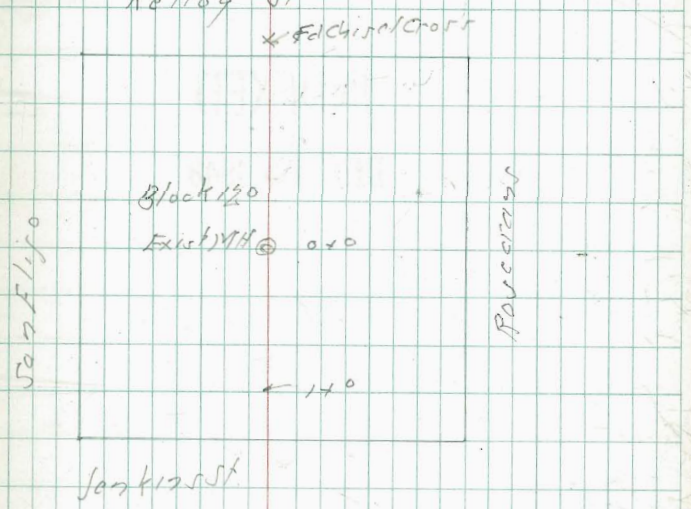
Sewer-Grades Block 120 La Playa

B.M.	11.36	44.96		33.60	N.E.B.P. Rovecrandt Kellogg St
TP	9.41	53.94	0.43	44.53	
040 = Exist M.H.			9.23	44.71	Invert
+25				44.89	9.05 5.76 c 3.29
+50				45.06	8.88 6.06 c 2.82
+75				45.24	8.70 6.60 c 2.10
140 = D.E				45.41	8.53 6.71 c 1.82

Jan 25-48
S. Sloan
Smith
Lee
Finney

Stakes offset 5' N or W of ℄

Sketch #425-48



Volley Ball Courts
Presidio Playground

BM	7.94	15.76		7.82	S.E. BP Chestnut & Taylor
TP	4.54	13.34	6.96	8.80	

July 18-48
S. 55°07' W.
Smith
Becker
Lee
67.68 L

5.11

4.72

5'
8.60
4.74
5.11
F 0.37

50'

5'
8.90
4.44
4.72
F 0.38

5'
8.60
4.74
5.19
F 0.45

5.19

8.90
4.44
2.85
C 2.09

Gym Bldg

Cross on 4th Conc Step
4.35

5'
8.60
4.74
4.97
F 0.23

4.97

50'

5'
8.90
4.44
4.20
C 0.24

4.20

Sewer Laterals Alley Block 45
Tract # 1868

BM	0.00	362.83	362.83	N.W. BP Trojan Ave Winona
0+00 = N.L. Trojan				
0+60	③ on West		353.40	9.63 8.56 c 3.07 5'

1+10	① on West		353.59	9.24 6.21 c 2.97 5'
3+60	② on West		355.21	7.57 6.33 c 1.24

Sewer Laterals Alley Block 47
Tract # 1868

July 19-48
S. S. Smith
Becker
Lee

W.O. 31211

BM	3.36	347.64	344.28	N.E. BP Trojan Ave & 10th St
TP	8.39	353.63	345.24	
0+00 = N.L. Trojan				
2+85	⑤ on West		344.54	9.13 8.07 c 2.06 5'
3+10	④ on East		345.27	8.40 8.26 c 1.67 5'

Grades 6" Water Main St. Isabel Ave. Trojan Ave to E/ Capon Ave.

1+90.5			357.90	8.4/ 5.4/0 c3.2
1+43 = E.C.			357.50	8.8/ 5.6/ 3.4 c
1+03			357.50	8.8/ 5.3/0 3.1
+63 = P.C.			358.20	8.1/ 4.86 c3.25
+31.5			358.90	7.1/ 4.53 c3.38
0+0 = P.C. Trojan			359.60	6.79 2.96 c3.94
BM	3.18	366.31	362.83	XX BP Trojan Avenue

Grade 8.5' Below Fast Gutter Pencil / Grade #3396
Offset 6 Feet of ℄ Ditch

24

5+50.4 = E.L. E/ Capon					369.70	5.77 2.44 c3.33
5+04.6					367.00	8.1/ 5.03 c3.14
4+58.8					364.36	11.13 8.03 c3.14
TP	9.64	375.47	0.48		365.83	
4+13 = E.V.C.					361.60	4.23 1.08 c3.22
3+73					359.96	6.41 3.31 c3.10
3+33.0 = P.V.C.					359.10	7.25 4.10 c3.15
2+85.5					358.70	7.65 4.55 c3.10
2+38					358.30	8.8/ 4.67 c3.14

366.31

Grades 6" Water Main Estrello Ave
Trojan Ave. to El Cajon Ave

+50			344.85	10.58 / 2.28 / C3.27	
TP	754	35541	499	347.87	
2+0			344.46	8.40 / 4.99 / C3.41	
+50			344.07	8.78 / 5.33 / C3.46	
1+0			343.68	9.18 / 5.77 / C3.41	0.78
+50			343.29	9.57 / 6.26 / C3.34	
0+0 = N.L. Trojan			342.90	9.96 / 6.45 / C3.51	
BM	8.58	352.86	344.28	N.E. BP Trojan Ave. +28'+55'	

Nail in Paving
offset 5 East of E Ditch
Sta 3+11

July 19-48
S. Sosa
Smith
Bechtel
Lee

+35 S.L. El Cajon Ave.		346.30	9.11 / 5.81 / C3.30
4+0		346.02	9.39 / 6.13 / C3.26
+50	0.78	345.63	9.78 / 6.55 / C3.23
3+0		345.24	10.17 / 6.94 / C3.23

35541

Paving Grades Alley Block 47 Tract 4368
Trojan to El Capon between 48th & Estrella

		N	E		
2+42.5	6.48 / 6.18 / c 0.30 / 3'	348.30	348.80	6.98 / 5.94 / c 1.04 / 3'	
TP	6.18	354.78	3.69	348.60	
1+70	4.73 / 4.33 / c 0.40 / 3'	347.67	347.77	4.52 / 3.07 / c 1.45 / 0.1	Rail Fence
1+27.5	5.45 / 5.31 / c 0.14 / 3'	346.84	347.04	5.25 / 4.06 / c 1.19 / 3'	on Conc Apron
+85	6.18 / 5.69 / c 0.49 / 3'	346.11	346.31	5.98 / 4.54 / c 1.44 / 3'	
TP	6.30	352.29	4.42	345.99	
+42.5	5.03 / 5.03 / 0.00 / 3.8	on Bldg. 345.38	345.58	1.83 / 3.76 / c 1.08 / 0.55	Rail Fence
0+0 = N.Z. Trojan	5.76 / 5.39 / c 0.37 / 3'	344.65	344.85	5.56 / 5.56 / 0.00	c & Return
TP	5.48	350.41	8.23	344.93	N.W.B.P. Trojan 4th.
B M	8.88	353.16		344.28	

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W.O. 31121
Cross Sections 1937-1

July 21-48
S. Smith
Rocket
Lee

26

		West	℄	East	
1+04.56 = 51 El Capon 9.90 on Bldg.	4.53 / 4.53 / 0.00	350.25		350.29	4.49 / 4.49 / 0.00 / 0.15	c & Return
3+80	4.14 / 4.82 / F 0.68 / 3'	350.64		350.82	3.96 / 4.07 / F 0.11 / 0.7	Rail Fence
3+40 : P.I.C	4.30 / 4.90 / F 0.60 / 3'	350.48		350.68	4.10 / 4.27 / F 0.17 / 3'	
2+97.5	5.03 / 5.03 / F 0.03 / 3'	349.75		349.95	4.83 / 4.69 / c 0.14 / 3'	
2+55	5.71 / 5.33 / c 0.43 / 3'	349.02		349.22	3.56 / 4.99 / c 0.43 / 3'	

354.78

Paving Graders Alley Block 46 Tract # 1868
Trojan to El Cajon Between Estrella & 49th St.

		West	℄	East	
2+24	6.31 / 4.75 / c 1.59 / 0.30 Hail Fence	349.76		350.06	4.98 / 4.28 / c 1.56 / 0.6
1+76	6.68 / 4.27 / c 2.41 / 0.45 Hail Fence	349.42		349.72	6.38 / 3.50 / c 2.88 / 0.6 Hail Fence
1+28	7.03 / 4.35 / c 2.68 / 0.55 Hail Fence	349.07		349.37	6.73 / 4.39 / c 2.34 / 3
+80 = B-k	7.38 / 5.92 / c 1.46 / 0.6	348.72		349.02	7.08 / 5.62 / c 1.46 / 3 c&c Apron
+50	7.52 / 7.98 / F 0.46 / 3	348.58		348.88	7.22 / 7.32 / F 0.10 / 3
+20 = B-k F 0.37 / 3	7.6 / 8.03	348.41		348.71 c 0.56 / 1.6 Hail Fence	7.86 / 8.86
0+0 = N.L. Trojan	7.41	348.49		348.63	7.47 / 7.47 / 0.00 c&c Return
TP	7.53	356.10	4.39	348.57	N.S. & P. Trojan + 48th
BM	8.88	353.16		344.38	

4+46.98	Sta. El Cajon 9.90 on 5109.	352.69 / 4.77 / 4.77 / 0.05 / 0.20 c&c		352.06	4.40 / 4.40 / 0.00 on 7041.
+40	5.10 / 5.10 / 0.00 / 0.2 on 7069.	352.36		352.66	4.80 / 4.05 / c 0.75 / 2.75 Tack to Door Step
+20	5.56 / 5.56 / 0.00 / 0.1 on 7129.	351.90		352.20	5.24 / 4.70 / c 0.54 / 2.78 on 8169.
TP	6.81 on 8169.	357.41	5.50	350.60	
1+0	4.61 / 3.81 / c 1.40 / 0.05 on 8169.	351.49		351.79	4.91 / 4.91 / 0.00 / 0.3 on 8169.
+80	4.96 / 5.37 / F 0.41 / 3	351.14		351.44	4.26 / 4.38 / c 0.38 / 1.0 on Conc Apron
+60	5.14 / 5.50 / F 0.36 / 3	350.86		351.16	4.91 / 4.35 / c 0.59 / 1.0 on Conc Apron
+40	5.47 / 6.18 / F 0.71 / 1.0	350.63		350.93	5.17 / 4.59 / c 0.58 / 0.2
3+20 = P.V.C.	5.44 / 5.29 / c 0.35 / 0.6 Hail Fence	350.46		350.76	5.31 / 4.22 / c 1.12
2+72	5.99 / 6.12 / F 0.13 / 3	350.11		350.41	5.69 / 4.80 / c 0.89 / 0.55 Hail Fence

356.10

Paving Grader Hill, Block 45 Tract #1368
Trojan to El Cajon Between Agate & Minona

		West	Σ	East	
+50	5.39 5.84 F1.57 5	358.27		358.49	5.06 6.18 F1.12 2 .7 Conc Apron
3+0	5.40 6.78 F1.38 3	358.15		358.37	5.18 6.00 F0.82 3
+50	5.53 5.43 C0.10 3	358.02		358.24	5.31 4.86 C0.45 3
2+0	5.65 5.53 C0.12 3	357.90		358.12	5.43 5.26 C0.17 3
TP	5.43	363.65	4.00	358.13	
+50	4.35 5.45 F0.90 3	357.78		358.00	4.43 4.94 F0.81 3
1+0	4.48 5.30 F0.82 3	357.65		357.87	4.21 4.23 C0.03 3
+50	4.61 4.97 F0.36 15	357.52		357.74	4.39 4.10 C0.29 3
TP	5.09	362.13	4.61	357.04	
	5.97				5.75
0+0 = M.L. Trojan		357.40		357.62	
BM	0.64	363.27		362.83	M.W.B.P. Trojan & Minona

W.O. 31491
Cross Sections 1787-11

July 31-48
S. Smith
Becker & Lee

		West	Σ	East	
				2.80	364.62
+19.52 = St. El Cajon		363.14		364.10	
5+0	4.97 5.77 F0.80 5	362.40		362.62	4.70 5.70 C1.00 1.15 of Slope
+80	5.14 6.77 F0.163 5	361.40		361.42	5.90 4.05 C1.85 5
+60 = P.R.V.C	7.91 7.71 F0.10 5	360.01		360.23	4.09 4.96 C0.87 5
+40	8.12 8.48 F0.27 5	359.45		359.37	7.95 4.72 C3.23 5
TP	9.18	367.33	5.41	358.14	
+20	4.94 6.68 F1.74 5	358.61		358.83	4.72 3.74 C0.98 3
4+0 = P.V.C	5.15 6.54 F1.39 5	358.40		358.62	4.93 4.93 4.0.00 1.7 of Conc. Wall

363.55

Graders Water System Santa Clara Point
East + West 4" Line
Sketch Page 13

3-41-39

2+80 = ∠ 4°37'30" Lt -1.27 9.43 6.43 c2.93

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DEC 15 1948

2+46 = Corporation Stop out

2+45 = Lat #2 -1.55 -1.55 9.70 7.27 c2.43
9.70
7.96
c1.74
5

1+99 -1.92 10.07 7.65 c2.42

1+53 -2.29 10.44 7.47 c2.97

1+07 -2.66 10.81 8.15 c2.66

+61 -3.03 11.18 8.15 c3.03

5-46 -3.40 11.55 8.15 c3.40
11.55
8.47
3.08

0+15 = 4"x4" Tee = Lat #1 -3.40

BM 9.10 -0.95 Lt 0 & Santa Clara W.L. Post -0.96

Top Flgd 2" C.I. 5+38

8 N 1.18 8.15 6.97

Stakes offset 5' South of ℄ Ditch

Sgt 26-48
Sissons
Smith
Baker
Lic°

29

TP	2.67	9.64	1.18	6.97		
6+35				+0.91	7.34 3.67 c3.67	
1-42						
5+93 = 4"x4" Cross				+1.20	6.95 3.35 c3.60	
5+48.66				+0.85	7.30 3.70 c3.60	
5+04.33				+0.50	7.65 3.90 c3.75	
3-44.39						
4+60 = Corporation Stop				+0.16	7.99 3.83 c4.16	
1-55		-0.28				
4+05 = Lat #3		8.13 4.19 c3.94		-0.28	8.43 3.94 c4.49	
+04 Corp. Stop out						
3+62.66				-0.61	8.76 3.69 c5.07	
3+21.33				+0.94	9.09 3.64 c5.45	

8.15

Grades Extension 4" Water Line
East of Boatbourn Santa Clara Point

Stakes offset 5' West of ℄ Ditch

1+05 = 4"x4" Tee			-0.60	10.24 / 6.78 / C3.46
0+70			-0.36	10.00 / 6.96 / C3.04
0+35			-0.12	9.77 / 6.84 / C2.93
0+0 = 5½ Existing Line		9.54	0.10	9.54 / 6.09 / C3.45
7+65 = 4"x4" Tee		0.00		9.64 / 6.58 / C3.06
7+30		+0.25		9.39 / 5.59 / C3.80
2-35				
6+95 : Corp Stop	0.07	+0.49		9.15 / 5.40 / C3.75
6+65		+0.70		8.94 / 5.24 / C3.70

9.64

9.64 Brit Ford
Opp Page

Curb Grader South of Community Hall
Santa Clara Point
Alignment Page 13

			Gutter	Curb Grade	
1+43.63	22°18.5' = Eq Part		3.05 / 6.08	3.55	5.58 / 5.43 / 0.12
1+24.65			3.08 / 6.05		
1+06.70	11°09.25		3.12 / 6.01	3.62	5.61 / 5.61 / 0.00
+8.72			3.15 / 5.98		
+67.77	PRC		3.19 / 5.94	3.69	5.44 / 5.47 / Fo 0.03
1+50.82			3.22 / 5.91		
+33.88	= ℄ Curve		3.25 / 5.88	3.75	5.38 / 5.42 / Fo 0.04
+16.94			3.28 / 5.85		
0+0	= BCR		3.34 / 5.81	3.82	5.31 / 5.98 / Co 0.33
0-20	CB Angle		3.36 / 5.77	3.86	5.27 / 5.75 / Fo 0.48
BM	2.16	9.13		6.97	Top Fire Hyd

Aug. 11-48
Sisson
Smith
Melton
Garbol

31

Curb Grade

Stakes offset 5' Back of Face of Curb

2+63.13 = End	3.75	5.38 / 5.34 / Co 0.04 / Gas Co.
3+11.80	3.64	5.49 / 5.52 / Fo 0.03
2+20.47	3.54	5.58 / 6.38 / Fo 0.59
1+99.14	3.50	5.62 / 5.99 / Fo 0.37
1+77.81 = PCC 32°31.5'	3.47	5.66 / 5.91 / Fo 0.25

9.13

Paving Grader S Line Santa Clara Point

Sketch Page 13

1+86 5.62 4.11 1.90 4.37 c0.27

1+46 5.01 4.72 4.29 4.29 0.00

1+00.30 4.00 Sub Grade 3.82 c0.18 on Conc Valve Box 5.01 4.00 3.75 c0.25

0+70.30 = Opp Detail H 5.04 3.97 3.83 c0.14

0+0 = 60' Curb Radius 4.32 4.69 5.25 F0.56

2.76 9.73 6.97

BM 2.04 9.01 6.97 Top Fire Hyd

Curb Grader West Part of Detail A
Santa Clara Point

		Gutter	Sub Grade	Curb Gr.	
1+44.50 = Δ	4.06	5.11	4.94	5.67	4.35 / 5.72 / FO.87
1+25.55 = E.C.	4.02	5.15	4.98	5.71	4.31 / 4.80 / FO.59
1+11.80 = ℄ Curve	4.00	5.17	5.00	5.73	4.19 / 4.87 / FO.70
+98.06 = BC 17.5 R	3.98	5.19	5.02	5.75	4.17 / 4.92 / FO.55
+79.56 = EC	3.96	5.21	5.04	5.77	4.15 / 4.94 / FO.99
+70.34 = ℄ Curve	4.01	5.16	4.99	5.72	4.20 / 4.85 / FO.66
+61.12 PCC R10'	4.06	5.11	4.94	5.67	4.25 / 5.65 / FO.80
+40.74	4.08	5.09	4.92	5.65	4.27 / 5.80 / FO.73
+20.37	4.11	5.06	4.89	5.62	4.30 / 5.27 / FO.97
0+0 = SW Cor BC R60.87	4.14	5.03	4.86	5.59	4.33 / 5.22 / FO.89
		9.17			
BM 2.95		9.92		6.97	

Curb Grader East Part of Detail A
Santa Clara Point

33

		Gutter	Sub Grade	Curb Grade	
+27.23 = E 10.8	3.94	5.18	5.01	5.74	4.18 / 4.80 / FO.62
+17.22 = B.C.	3.96	5.21	5.04	5.77	4.15 / 4.94 / FO.77
1+01.50 E.C.	3.98	5.19	5.02	5.75	4.17 / 5.07 / FO.90
+87.75 = ℄	4.01	5.16	4.99	5.72	4.20 / 4.77 / FO.57
+74.01 = B.C. 17.5	4.04	5.13	4.96	5.69	4.23 / 4.82 / FO.59
+61.00	4.07	5.10	4.93	5.66	4.26 / 4.86 / FO.40
+54.06	4.09	5.08	4.91	5.64	4.28 / 4.75 / FO.47
+32.70 Δ 60°	4.12	5.05	4.88	5.61	4.31 / 4.99 / FO.68
+22.70 = E.C.	4.14	5.09	4.92	5.65	4.27 / 4.89 / FO.62
+11.35 = ℄ Curve	4.05	5.12	4.95	5.68	4.24 / 4.92 / FO.68
0+0 = P.C.C. R60.87 + R10	4.01	5.16	4.99	5.72	4.20 / 4.93 / FO.78
		9.17			

99½

Curb Grades Detail "B"

		Gutter	Sub Grade	Curb Grade	
	Mid point	5.37 3.80			
1+02.14	PRC R3'	5.43 3.74	3.57	4.30	5.62 6.28 F0.67
0+89.55		5.49 3.77	3.60	4.33	5.59 6.26 F0.66
+76.66	PRC	5.56 3.81	3.64	4.37	5.55 6.17 F0.62
+70.19	BC. R10'	5.33 3.84	3.67	4.40	5.57 6.19 F0.62
+52.00	A	5.04 4.13	3.96	4.69	5.23 5.94 F0.71
+26.45	A 135°	4.99 4.18	4.01	4.74	5.18 5.88 F0.70
+13.23		5.05 4.12	3.85	4.58	5.34 6.08 F0.74
0+0 =	PCR R356.4+R3'	531 3.86	3.69	4.42	5.50 6.19 F0.69
		9.17			
BM	3.95	9.92		6.97	Top. Fire Hyd.

Curb Grades Detail C + D

Detail "D"

	Gutter	Sub Grade	Curb Grade	
+96.26 = 0+0		4.40	5.13	cut
+78.85 = A SE Cor	4.62 4.55 4.37	4.88	5.41	4.81 5.58 F0.77
+41.36 A	split 4.13 4.80 5.04	4.87	5.60	4.39 5.10 F0.78
+20.68	4.37 4.80	4.53	5.36	4.59 5.19 F0.67
0+0 = SW Cor	4.60 4.57	4.40	5.13	4.79 5.41 F0.62
	9.17			

Detail "C"

+89.84 = 0+0		3.94	4.47	cut
+72.50 = PRC R15'	5.24 3.93	3.76	4.49	5.13 5.13 F0.70
+58.88 = E	5.14 4.03	3.86	4.59	5.33 5.98 F0.63
+2.56 N W Cor	4.74 4.13	4.36	4.99	4.93 5.56 F0.63
0+0 = SW Cor	5.06 3.91	3.74	4.49	5.25 5.54 F1.09
	9.17			

9.92

Paving Grades Superior St.
38th St. to 39th St.

			Sub Grade			
+60	0.85	112.75	112.47 / 1.87	112.25	1.32	
+40	1.22	112.35	112.07 / 2.27	111.85	1.72	
+20	1.82	111.75	111.47 / 2.87	111.25	2.32	
2+0 = P.V.C.	2.52	111.05	110.77 / 3.57	110.55	8.02 / 8.14	101.24 / 12.33 / 113.57
0+60 = B.M.	7.63	105.94	105.66 / 8.68	105.44	8.13	
0+40 = B.M.	8.96	104.61	104.38 / 9.96	104.21	9.36	
0+20	10.80	102.77	102.66 / 11.68	102.54	11.03	
0+0	12.61	100.93	100.94	100.86	12.72 Pav.	

38th St.

Cross Sec. 1780-18
W.O. 81397

July 27-48
S. Sorg
Smith
Becker
Lee

35

2 Grades
July 30-48

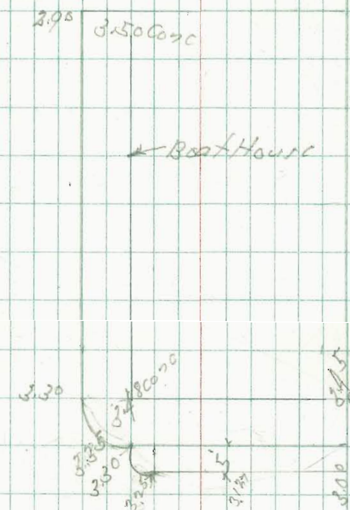
39th St.

			Sub Grade			
6+00		9.32 / 104.35	103.97 / 10.37	103.75	9.82	
+80	1.62	111.95	111.67 / 2.67	111.45	2.13	
+60	1.13	112.45	112.17 / 2.17	111.95	1.62	
+40	0.72	112.85	112.57 / 1.77	112.35	1.23	
+20	0.53	113.05	112.77 / 1.57	112.55	1.03	
7+0	0.42	113.15	112.87 / 1.47	112.65	0.93	
7+80	0.52	113.05	112.77 / 1.57	112.55	1.03	

Curb Grades Detail "F"
Santa Clara Point

Station		Gutter	Sub Gr.	Curb Grade	
3+14.78	split	4.79 4.38 4.92	4.24	4.98 5.07	4.10 4.60 F0.50
+64.78	= 1+44.96 on East	5.05 4.12	3.94	4.72 4.67	4.25 5.26 F1.01 / 4.50 5.03 F0.53
+39.78	= E.C.	5.17 4.00	3.69	4.60 4.42	4.75 5.24 F0.49 / 4.57 5.24 F0.67
+20.54	= ℄ Curve	5.07 4.10	3.86	4.59	4.58 4.98 F0.40
2+01.30	= B.C. 12.35 Rad	4.97 4.20	4.04	4.60 4.77	4.40 5.14 F0.74 / 4.57 5.19 F0.62
+86.30	= Δ	4.92 4.25	4.11 4.14	4.65 4.87	4.52 4.85 F0.33 / 4.38 4.85 F0.55
+64.94	= Δ on East Side	4.87 4.30	4.20 4.34	4.76 5.04	4.13 5.28 F1.15 / 4.47 5.28 F0.81
1+44.96	+ split	4.82 4.35 Top Conc Box 4.74	4.18 4.35	4.83 5.08	4.34 5.46 F1.12 / 4.08 5.03 F0.94
+94.94	= 3+14.78	4.67 4.57	4.45	5.08 5.18	3.99 4.60 F0.61
+71.34		4.49 4.68	3.89 4.61 0.72	5.28	
+44.94	split	4.37 4.80 4.26	4.65	5.34 5.38	3.79 4.40 F0.61
0+0	= N.E. Cor	4.36 5.01	4.84	5.57	3.60 4.32 F0.72
B.M.	2.20	9.17		6.97	Top of Hyd

Sub Gr. Curb Grade



(DAS) Set 4' Rad curb grade .05 Higher than walk
rest of curb same elv. as walk

Station		Gutter	Sub Gr.	Curb Grade	
4+38.09 = 0+0		4.16 5.01	4.84	5.57	3.60 ok
27.5					
4+10.59		4.41 4.76	4.59	5.32	3.85 4.29 F0.44
27.5					
3+83.09 Δ N	split	4.66 4.51 4.64	4.34	5.07	4.10 4.80 F0.70
3+38.48 Δ N		4.63 4.54	4.48	5.10 5.26	3.96 4.61 F0.65

9.17

Curb Grades Radius Point 60' Cb. Rad South of Community Hall

		Gutter	Sub Grade	Cb. Grade	
0+62.83	0+0	4.29	4.15	4.85	cut
+47.13		4.41 4.72	4.24	4.97	4.85 5.90 F0.95
+31.42		4.69 4.44	4.52	5.25	4.87 5.72 F1.03
+15.71		4.61 4.52	4.44	5.17	4.75 5.82 F1.07
0+0	= Rad. Line N.E.	4.29 9.13	4.15	4.85	5.07 5.96 F0.89
B.M.	2.95	9.92		6.97	Top Fire Hyd

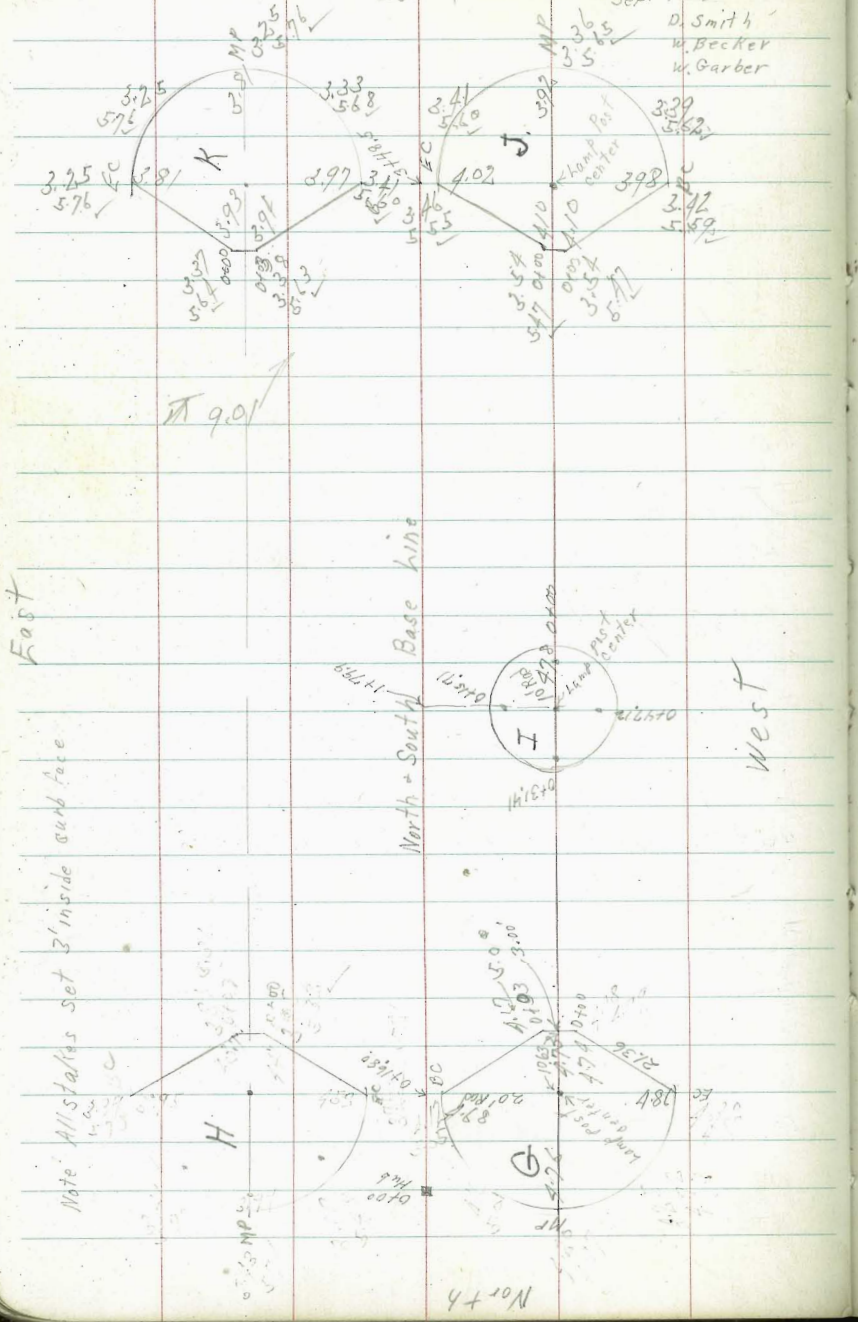
Curb Grader Detail F

37

	Gutter	Sub Grade	Curb Grade	
+88.70 = 0+0		3.86		cut
+75.25 = P.C. 15°	3.93	3.76	4.19	5.13 5.88 F0.75
+57.76 = Δ	3.91	3.74	4.17	5.15 6.15 F0.70
split	4.16			
+38.32 = Δ	4.10	4.23	4.96	4.96 5.63 F0.67
split	4.96 4.21			
0+0 = S.W. Cor.	4.03	3.86	4.59	5.33 5.74 F0.43
	(9.17)			
	9.92			

W.O. # 60242
Sept 16 1948
D. Smith
W. Becker
W. Garber

South



Curb Grades Detail G + H.

Detail H

	Gutter		sub grade	curb grade	
E.C.	4.69	4.32	4.52	5.25	3.92 / 4.59 / F0.67
1/4	4.42	4.59			
M.P.	4.16	4.85	3.99	4.72	4.45 / 4.82 / F0.37
1/4	4.12	4.87			
B.C.	4.13 / 4.89		3.95	4.68	4.49 / 5.06 / F0.57
0+03	4.54 / 4.17		4.37	5.10	4.07 / 4.72 / F0.65
0+00	4.58 / 4.43		4.41	5.14	4.63 / 4.70 / F0.67

Detail G.

	Gutter		sub grade	curb grade	
E.C.	5.03	3.98	4.86	5.59	3.58 / 4.27 / F0.69
1/4	4.98	4.03			
M.P.	4.93	4.08	4.76	5.49	3.68 / 4.34 / F0.66
1/4	4.89	4.12			
B.C.	4.85 / 4.16		4.68	5.41	3.76 / 4.45 / F0.69
0+03	4.90 / 4.11		4.73	5.46	3.77 / 4.68 / F0.97
0+00	4.91 / 4.10	9.17	4.74	5.44	3.70 / 4.35 / F0.65

9.01 ✓

B.M. 270 9.17 697 Top Nyd.

		Detail J	sub grade	curb grade	
E.C.			3,29	4,02	5.15 5.80 F0,65
M.P.			3.19	3.92	5.25 5.84 F0.59
B.C.			3.25	3,98	5.19 5.83 F0,64
0+03			3.37	4,10	5.07 5.75 F0.68
0+00			3.37	4,10	5.07 5.74 F0.67
		Detail I gutter	subgrade	curb grade	
0+47,12		4.30 4.71	4,13	4,86	4,31 5.01 F0.70
0+31,41		4.30 4.71	4,13	4,86	4.31 4,97 F0,66
0+15,71		4.32 4.79	4,05	4,78	4.39 5.06 F0.67
0+00		4.27 4.79 4.961	4,05	4.78	4.39 5.10 F0.71
		9/17			

		Detail K	sub grade	curb grade	
E.C.			3,08	3,81	5,36 5.93 F0,57
M.P.			3,08	3,81	5,36 6.11 F0.75
B.C.			3,24	3.97	5,20 5,82 F0,62
0+03			3,21	3,94	5,23 5,85 F0.62
0+00			3,20	3,93	5,24 5,85 F.0.61
		9/17			

Sewer Laterals Alley Block 47
Ocean Beach
Cross Sections 1814 W.O. 31431

BM	9.45	45.64		36.19	Offset 5' Back PL
(2) North 90' W of W.L. Sunset Cliffs				31.76	N.W. BP Sunset Cliffs 1305 W.L. 13.88 8.63 C 5.25 5' N of PL
(1) South 90' W of W.L. Sunset Cliffs				31.73	1391 896 C 495 5' S of PL
(3) North 262.5' W of W.L. Sunset Cliffs				28.20	1744 1192 C 552 5' N of PL

Sewer Laterals Alley Block 58
Ocean Beach
Cross Sections 1768 W.O. 31398

Aug. 30-48 Simon Smith Becker Barger

40

BM	6.68	19.43		1305	S.W. BP Cable & Power Pole
(1) North 40' W of W.L. Cable St				9.30	9.88 4.58 C 5.65 5' N of PL
(2) South 115' W of W.L. Cable St				9.03	10.10 5.32 C 4.82 5' S of PL

Paving Grade - Alley Block 211 University Ave
University to Lincoln Between 32nd & Bancroft

	West			East	
+60	3.85 / 2.41 / 1.44 / 5	344.79		344.49	4.15 / 4.67 / FO 0.52 / 3
TP	4.07	348.64	9.01	344.57	
1+20	7.50 / 5.27 / 2.23 / 5	346.08		345.78	7.80 / 6.99 / 1.01 / 1.7 Fair
+80	6.21 / 4.59 / 1.62 / 3	347.37		347.07	6.57 / 6.86 / FO 0.29 / 4 Iron Post
+40 - P.V.C.	4.92 / 4.44 / 0.48 / 5	348.66		348.36	5.22 / 5.11 / 0.11 / 9
+20	4.40 / 3.85 / 0.55 / 5	349.18		348.87	4.71 / 4.90 / FO 0.19 / 4
0+0 = N.Lush.		349.45 / 4.13 / 4.18 on Post		349.17 / 4.45	
BM	4.73	353.58		348.85	9" Cap. Tack 1694-69

Oct 27-48
Sisson
Smith
Becker
Barger
Clark

W.O. 31236

Cross Sections #1694

	West			East	
+40 = Cb Inlet	4.53 / 4.96 / FO 0.43 / 2	339.91		339.51	4.83 / 4.46 / 0.37 / 5
+20	4.83 / 3.99 / 0.84 / 1	340.01		339.71	4.63 / 4.38 / 0.25 / 1
TP	5.14	344.34	9.44	339.20	
2+0	8.36 / 7.98 / 0.38 / 2	340.38		340.08	8.56 / 9.23 / FO 0.67 / 3
+80 = P.V.C.	7.70 / 6.83 / 0.87 / 1 Post	340.94		340.64	8.00 / 9.99 / FO 1.99 / 5
+40	6.43 / 4.47 / 1.96 / 09 Post	342.22		341.92	6.22 / 4.85 / FO 1.37 / 4
2+0	5.14 / 2.94 / 2.20 / 3	343.50		343.20	5.49 / 5.76 / FO 0.27 / 4

348.64

		W	Z	E	
	5.88	343.46	Paving	343.39	5.95
+97.21 = SL Lincoln		342.95	343.25	342.88	
+80	5.54 4.54 c1.00 1	343.57	343.26	343.41	5.71 3.84 c1.87 0.8
	Co.74	343.49		343.42	c1.58
+60	5.43 4.80 c0.63 c0.63 1	343.53	343.14	343.29	5.67 4.08 c1.59 c1.46 1
	Co.63	343.40		343.16	
+40	5.53 5.31 c0.22 c0.19 5	343.33	342.90	343.05	5.82 5.43 c0.39 c0.49 1
		343.30		343.01	Co.49
5+20 = PVC	5.86 5.49 c0.37 5	342.97	342.52	342.67	6.16 5.54 c0.62 2
TP	5.54	348.83	1.05	343.29	
+80	2.25 2.00 c0.25 3	342.09		341.79	2.55 2.20 c0.35 5
+40	3.14 1.90 c1.24 5	341.20		340.90	3.44 3.46 F0.02 5
4+0 = EVC	4.02 4.37 F0.35 5	340.32		340.02	4.33 4.34 0.00 8 Nail Fence
+80	4.37 5.28 F0.91 5	339.97		339.67	4.62 4.74 F0.07 0.9
2+60	4.54 5.17 F0.63	339.80		339.50	4.84 5.48 F0.64 2
		344.34			

Grades Culvert Alley Block 211 Chisholm

42

Flowline

1+92.97		337.34	11.30 9.75 c1.55 5
1+67.22		336.90	11.34 9.24 c2.10 5
+21.98		336.46	13.18 7.81 c4.37 5
0+35.34	+0.41	336.02	13.63 7.39 c6.24 5
0+0 = ℄ Existh drain ck		335.58	13.06 7.72 c5.34 5 Est
	348.67		

Paving Grader Boundary St.
University Ave to Lincoln Ave.

TP	6.35	342.32	1.95	336.97	
BM	5.48	338.92		333.44	N.W.B.P. University & Boundary

W.O. 31286

Oct. 27-48
Simon
Smith
Becker
Berger
Clark

Cross Sec. 1733

Lincoln Ave

Paving

Bancroft St

University Ave

B-k. 333.21 333.20 +34.3
B-k. 333.08 332.95 B-k. +14.3
332.98 0+00
332.28

Grader Shuffleboard Courts
Highland & Landis Community Center

See Sketch Page 2

BM	6.68	360.19	353.51	HWBP Landis & Highland
		Court #1		4.47 Poured
N			355.73	4.46 5.53 F0.53 ✓
N & S		4.46 5.54 F0.68	355.73	
S		4.46 5.55 F1.09	355.72	4.46 5.55 F1.09
		Court #2		4.49 Poured
N			355.71	4.48 4.69 F0.19 ✓
S		4.48 5.54 F1.06	355.71	4.48 5.54 F1.06
		Court #3		4.51 Poured
N			355.69	4.50 4.53 F0.03 ✓
S		4.50 5.48 F0.98	355.69	4.50 5.48 F0.98
		Court #4		
N			355.67	4.52 4.62 F0.10 ✓
S		4.52 5.70 F1.18	355.67	4.52 5.68 F1.16
		Court #5		
N & S			355.65	4.54 4.67 F0.13 ✓
S		4.54 5.52 F0.98	355.65	4.54 5.52 F0.98

Restake
Nov. 23-48
Sisson
Smith
Becker
Barger

W.O. 60283

Nov. 1-48
Sisson
Smith
Becker
Barger
Clark

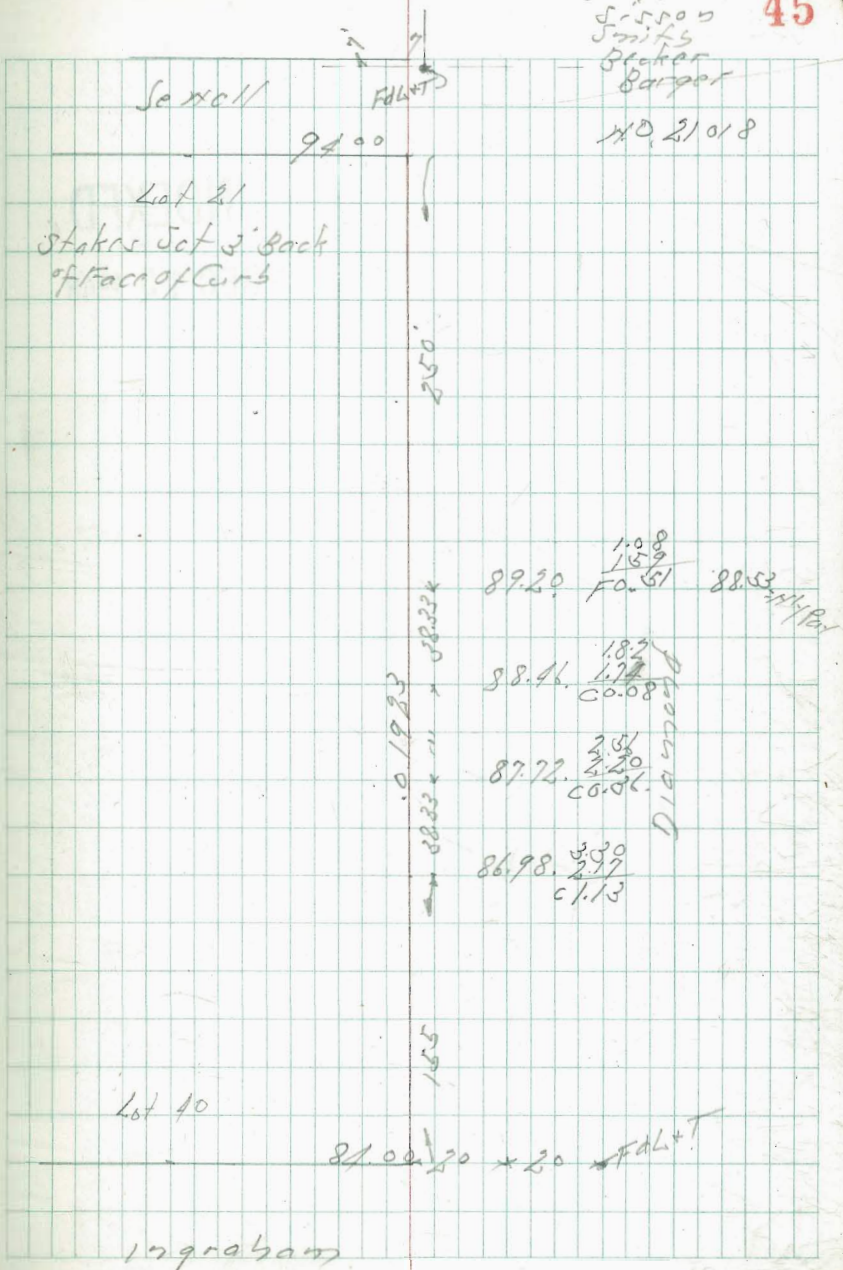
Curb Grades @ Side Diamond Between
Ingraham & Jewell
Lot 31-34 Block 145 Pacific Beach

B.M.	6.69	90.28	83.59	S&T Diamond E.L. Ingraham

INDEXED
WK
DEC 15 1948

LOT 31-34 BLK. 145 ADD. Pacific Beach
OWNER C. W. Spaffarch
CONTR. Pacific Cement Co.
PERMIT NO. 3462

Dec. 2-48
Survey
Smith
Brother
Barger



Curb Grade Garrison St
N. Hollow St to Plum St

3+15.86	0.13.13 C H=82	27°13'4			SE Top F. Hyd. Plum & Garrison 85.69 #1756-42
BM			1.97	85.68	
3+01.68	SE/y Plum 12.96 C H.67	17°11.6'			
+87.68 R 10 C 11.83 R 36 C 10.58		8°27'			
+75	= Cb BC				
+60	⊙		75.85	11.80 4.37 7.43 2	
+37.5					
+10	⊙ Rt		70.02	⊙ Lt	70.52
TP	12.05	87.65	0.25	75.60	
2+0	= Brk on Lt				
+62.5					
+60	= ⊙		64.32	11.53 4.31 7.22 2	
1+25	= Brk Rt. = Beg. New Curb				
1+10	= ⊙		58.77		
TP	12.57	75.85	0.37	63.34	
+60	= Sewer Lateral ⊙		53.22	10.29 3.08 7.21 2	
0+0	= N/H, N. Hollow				
				51.45	
BM	12.26	68.71		51.45	SW. B.P. N. Hollow & Garrison

INDEXED
WK
DEC 15 1948

Dec. 6-48
Sisson
Smith
Gerber

Y/P. 81383
Cross Sec. #1756-39

#1 Offset 7' Back of Curb Face
#2 " 8' " " " "

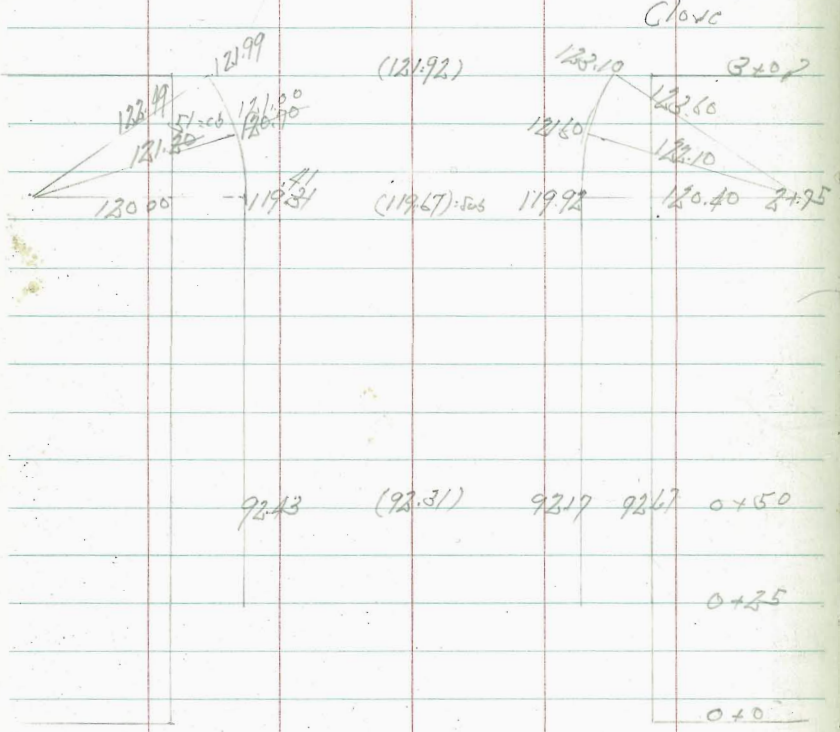
Lt Cb Grade
South

	85.83		
	84.66		
	83.29		
80.65			
	79.33		
89.04 3.95 85.09 on FH			
	65.68		
75.86			

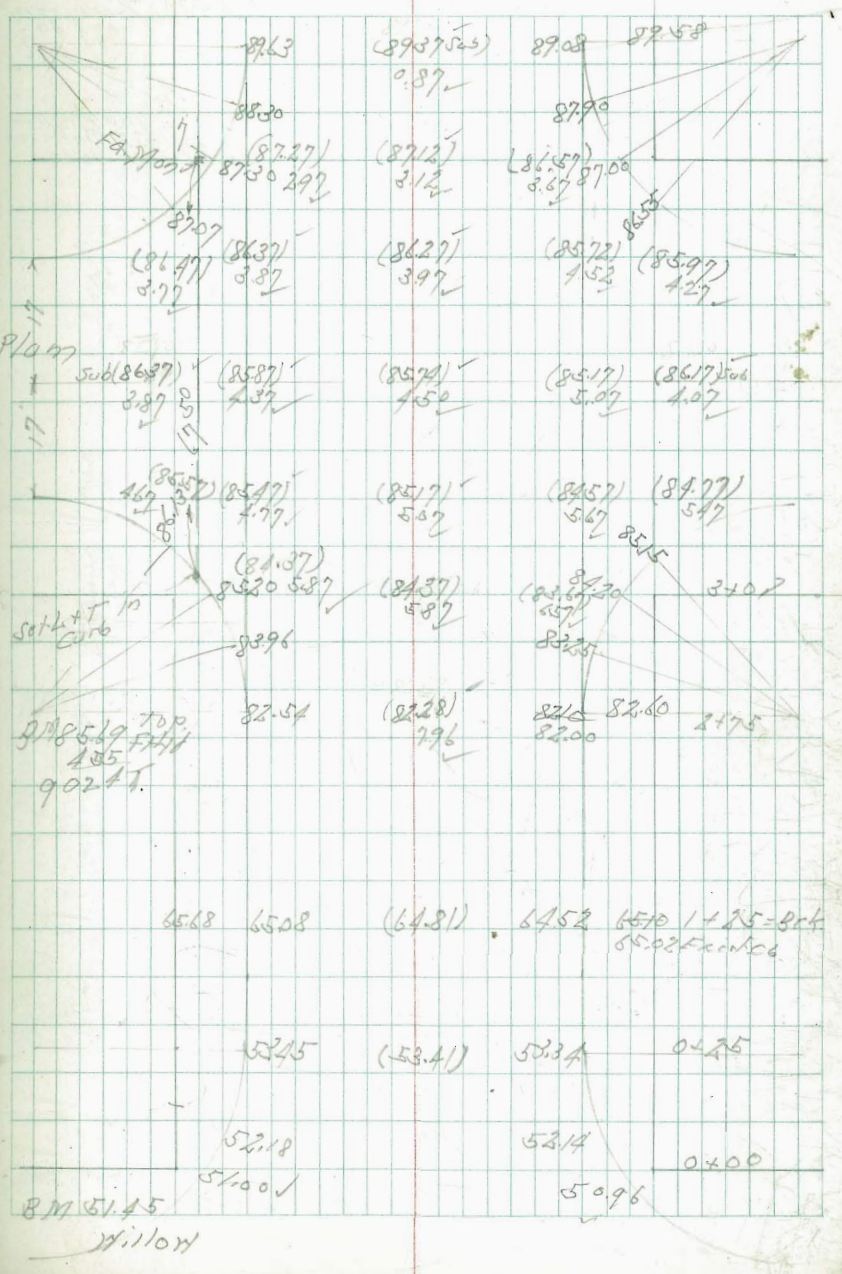
Rt Cb Grade
North

5.39 5.37 4.45 Fo .86	85.85	13.08 12.96 co .31	
4.96 4.45 Fo .11	84.70	3.95 3.64 Fo .36 7	
5.29 5.29 Fo .0	83.75	3.90 3.74 Fo .24 7	
6.44 6.03 Fo .29	82.60	10.5 5.37 Fo .32 7	
10.81 11.13 Fo .32	78.23	9.47 9.72 Fo .30 7	
2.65 3.11 Fo .11 3	73.85	3.00 3.27 Fo .12 7	
7.02 6.89 co .13 3	69.48	6.37 6.31 co .06 7	
11.40 11.99 Fo .09 on Cb Ford	65.10	10.75 10.70 co .05 7 Back Face of Curb	

Garrison St. Paving



Parenthesis (89.37) = Sub. Grade



BM			3.99	125.42	N.E. BP Clove + Garrison 128.40 - 1756-46
3+01.68 = E.L. Clove					
+87.68					
TP	7.14	129.41	1.60	122.27	Top Fire Hyd SE Garrison + Clove
+75 = C.L. BC					
+30					
2+10	⑭	107.35	16.57 10.84 C5.73 2	⑦ 107.41	14.46 9.43 C7.02 2
TP	13.19	123.87	0.00	110.68	
+85					
+60				⑧ Brk 101.35	9.33 2.85 C6.47 2
1+40					
1+10	⑬ Lt	95.35	15.33 6.82 C8.51 2	⑨ 95.35	15.83 9.35 C6.48 2
TP	12.66	110.68	0.72	98.02	
+95					
+60				⑩ 89.35	9.35 3.37 C5.98 2
0+50 = Brk					
0+25 : C.L. EC					
0+12.82					
0+10	⑫ Lt 83.62		15.12 8.44 C6.68	⑪ Brk 83.30	15.44 8.50 C6.94 2 Back of
0 - 1.68					
0 - 15.86					
BM	13.05	98.74		85.69	SE Top of Fire Hyd Plum + Garrison

South

North

2.18 3.68 F0.03	Curb	123.60	5.81 5.97 C0.84 7
3.68 3.77 F0.09		122.10	7.31 4.14 C1.17 7
5.88 5.98 C0.10		120.10	5.47 5.20 C0.46 7
10.91 10.95 C0.46		114.89	9.00 7.65 C1.35 7
5.14 5.27 F0.13		109.32	1.36 0.31 C1.05 7
10.69 10.89 C0.06		103.77	6.91 5.96 C0.95 7
3.25 3.31 F0.06		98.22	5.87 5.00 C0.43 7
8.80 9.00 F0.20		92.67	6.07 6.13 F0.06 7
11.89 11.90 F0.01		89.58	9.46 9.03 C1.13 7
0.64 0.41 C0.23		88.40	10.37 9.19 C1.18 7
1.54 1.40 C0.14		87.50	11.44 9.64 C1.26 7
1.99 2.05 F0.06 3		87.05	11.69 10.52 C1.17 7

110.68

89.04
0.71
89.33
12.54
101.87
0.29
101.58
13.46
115.04
0.79
113.67
12.41
125.78
3.54 Top F.H. at SE Clove + SE Garrison
122.24

98.98

Grades Storm Drain Lots 35 to 38
Block 7 Packer Add. South of Wightman St.
Between Louisiana St & Texas St.

5+42.84		258.70	9.97 4.45 C 5.47 10
5+19.34		259.21	9.41 4.50 C 4.71 10
4+90.84	Catch Basin TIC 10' South & 45' East Conc	259.72	8.90 4.80 C 4.10 10
4+60.00		260.31	5.10
4+29.16	12" Sta Iron Sch	260.91	
3+98.33	= Δ 5° 11' Lt. = Existing Conc Box	261.51	6.99 07 Flow Line

Dec. 14-48
Sisson
Smith
Rector
Sanders

49

Stakes offset
10' South & 45' East

NO 80 1/23

BM.	1/14	268.62		257.48 Flow Line 2.10 Exist Pipe Culv.
6+05.99 = Fly Conc Pipe Culv.				257.48
6+02.84 = EC.			out	257.57
5+86.59 = ½ Curve	Δ 20° 41' 30" R 90' T 16.43 L 32.50 E 1.49			257.88 10.79 4.99 C 5.55 10
5+70.34 = BC Lt.				258.19 10.43 4.52 C 5.90 10

Alignment Canon St. Storm Drain

Jan. 18. 49
Sisson
Smith
Garber

W.O. 90066

Location 7855

Curb Inlet #2

Sch Box

Fast End Sch Box

West End Sch Box

Δ 89°59'
R 45'
T 44.99
L 70.67

Δ 58°00'
R 90'
T 46.85
L 91.09

Δ 90°00'45"
R 45'
T 45.01
L 70.70

Δ 60°00
R 45'
T 25.98
L 47.12
D 38.197

Rosecrans St

E. Storm Drain #2

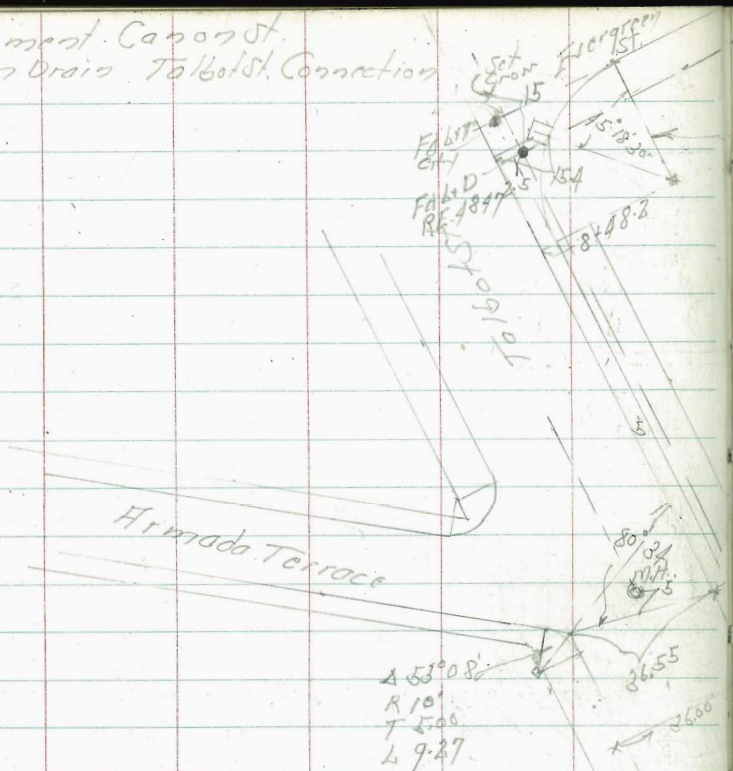
Canon St

Joint Storm Drain #2

Channel Rip Rap

Sch Box

Alignment Canon St.
Storm Drain Talbot St. Connection



Grader Canon St. Storm Drain

Alignment Page 50

2+25.12	P.C.	30° 00'		5.01	18.10 / 4.99 / 13.11 c / 10' Rt on St'n
c 15.58°		10-06.6			
2+09.29	℄ 1/2 lot 7+3	19°53.4'		5.20	17.91 / 4.31 / 13.60 c / 7' Rt on St'n
c 15.54		9°56.7'			
+93.62	7+7	9°56.7'		5.39	17.72 / 4.30 / 13.42 c / 7' Rt on St'n
c 15.54					
1+78	=BC ℄			5.58 ✓	17.53 / 4.28 / 13.25 c / 7.5 Rt on Cb
1+46 ✓				5.96	17.15 / 4.07 / 13.08 c / 7.5 Rt on Cb
1+14 ✓				6.35	16.76 / 3.82 / 12.94 c / 7.5 Rt on Cb
0+82 ✓				6.73	16.38 / 3.78 / 12.60 c / 7.5 Rt on Cb
0+50				7.12	15.96 / 3.54 / 12.42 c / 7.5 Rt on Cb
0+18				7.50	15.61 / 3.37 / 12.24 c / 7.5 Rt on Cb

BM 17.37 ft

19.81 Sill 72 ft Rose Glen Harbor

BM				
1+10		2.50	14.87 / 3.50 / 11.37 c	
+75		2.79	14.58 / 2.74 / 11.84 c	
+50		3.07	14.30 / 2.08 / 12.22 c	
+25		3.36	14.01 / 1.63 / 12.38 c	
3+0		3.64	13.73 / 1.44 / 12.29 c	
TP	7.03 23.11	1.39	16.08	0 = 5+46 10 Lt 3+0
+75		3.93	19.18 / 6.35 / 12.83 c	
+49.58 = ∠30°		4.22	18.89 / 5.90 / 12.99 c	
2+41.12	18.79 / 6.02 / 12.77 c	4.32 → 4.82 ✓	18.89 / 6.02 / 12.87 c	

0.12

0.12

Canoga St. Storm Drain

17.37A

+83.88	Δ 67°30'33"		0.40	16.93 / 4.25 / C 12.68
+66.21	Δ 45°00'22"		0.60	16.77 / 5.34 / C 11.43
+48.53	Δ 22°30'11"	0 11.46	0.80	16.57 / 5.01 / C 11.56
+34.86 BCR41'				
+30.86 = BCR45			1.01	16.85 / 4.34 / C 11.52
5+40			1.36	16.01 / 4.88 / C 11.13
+75			1.64	15.73 / 4.44 / C 11.29
+50			1.93	C 11.78 / 15.44 / 4.00
4+25			2.21	15.16 / 4.00 / C 11.16

+69.63 - B.C.H.				-1.74	C 1.89 × 16.99 / 5.80 / 10.24
BM 1	1.80	12.45		10.35	07 H06 7+75.34 06
" 2	7.22	17.37		10.15	18.53 +11
+50			18.89 / 5.16 / C 11.73	-1.52	
+25				-1.23	18.60 / 7.11 / C 11.49
7+0				-0.94	18.27 / 6.96 / C 11.35
+75				-0.64	18.01 / 7.04 / C 10.97
+50				-0.36	17.77 / 6.34 / C 11.49
+25				-0.07	17.36 / 5.35 / C 11.9
6+0.56 - E.C. 90°00'45"				+0.20	17.17 / 5.33 / C 11.84

Canon St. Storm Drain

+53.10	20°37'5	-3.84	15.99 7.21 c8.78	
+31.50	13°45'	-3.59	15.74 6.39 c8.95	
c 21.55				
9+09.90	6°52.5'	-3.34	15.49 5.70 c9.79	
+88.30 = B.C.P.T.		-3.10	15.25 4.75 c10.5	
+64.30		-2.82	14.97 3.86 c11.11	
8+40.30 EC	Δ 89°59'	-2.55	14.70 3.65 c11.05	
+22.69	Δ 67°29'15"	-2.35	14.50 2.89 c12.41	
8+04.97	Δ 44°59'30"	-2.14	14.29 2.41 c11.88	
7+87.30	Δ 22°29'45"	-1.94	14.09 2.54 c11.55	

12.15

9.14
5.14
454

+42.69 = #4		-6.00	2.00	
+34.69 = #3		-5.91	9.96 6.00 c3.96	
+26.69 = #2		-5.82	8.96 5.13 c3.83	
+18.69 = P.O.T. #1		-5.73	8.86 4.98 c3.88	
11+0		-5.52	8.66 5.32 c3.34	
TP	2.03 3.14	11.04	1.11	
+76		-5.23	17.38 11.44 c5.94	
+50		-4.95	17.10 10.13 c6.97	
+25		-4.66	16.81 7.50 c9.31	
10+0		-4.37	16.52 7.79 c8.73	
9+74.69 EC	27°30'	-4.08	16.23 8.26 c7.97	

12.15

Canon St. Storm Drain Line Change

6+03.27	6+01.52	Ok			
+99.27	EC	90°		0.23	17.48 5.66 c11.82
+92.01		80°		0.31	17.41 4.30 c12.11
+84.91		70°		0.39	17.33 4.36 c12.97
+77.76		60°	Δ 90°00'45" R 41' T 41.01 L 64.41	0.47	17.24 6.30 c10.94
+70.61		50°		0.55	17.16 6.25 c11.39
+63.46		40°		0.64	17.07 5.58 c11.49
+56.31		30°		0.72	16.99 5.82 c11.17
+49.16		20°		0.80	16.91 5.96 c11.95
+42.01		10°		0.88	16.83 5.18 c11.65
5+34.86	BC 41 R			0.96	16.75 5.05 c11.70
					0.7 #05 NP
BM	5.18	17.71		12.53	5+30 Add'l BC

Grades Canon St Storm Drain
Talbot St. Connection

March 1-49
Sisson
Smiley
Buckner
Barnes

55

+23.38		17.69		13.08 8.31 c5.77 10.91
+10.42	12.96	17.46		13.31 6.00 c6.41
9+78.55				
+07.57	BC	17.22		13.55 4.38 c8.84
2+05.57	Clean Out	17.16		13.61 3.55 c9.76 10.18
+75		15.68		15.09 8.46 c6.22
+50	14.47	14.47		16.30 9.58 c6.89
+25		13.81		17.57 10.46 c7.05
1+0	Brk	13.05		18.32 11.08 c7.24
+73.59		10.47		20.38 11.47 c8.83
+55	9.06	9.35		21.43 11.81 9.61 10.18
0+20.77	Out	7.30		
BM	10.96	30.77	19.81	SM 7 Aut Reference YCIPS Sur

Grader Canon St. Storm Drain
Talbot St. Connection

4+0			22.72	8.05 / 1.81 / c 6.24 / 10' RT	
+75	20.64	2.12	22.16	8.61 / 3.17 / c 6.44	
+50	Brk		21.61	9.17 / 3.69 / c 6.54	
+25			20.85	9.92 / 3.06 / c 6.92	
3+0	75.73		20.10	10.67 / 4.01 / c 6.66	
+74.37					
+78.37	= E.C.		19.32	11.45 / 4.82 / c 6.63	
+70.41			19.09	11.68 / 5.00 / c 6.68	
+68.55		3.0	18.86	11.91 / 5.13 / c 6.78	
+64.70	72.7		18.63	12.14 / 5.49 / c 6.65	
+46.84			18.40	12.37 / 5.45 / c 6.92	
+38.99			18.16	12.61 / 5.53 / c 7.08	
2+31.13			17.92	12.85 / 5.99 / c 6.86 / 10' RT	

3.77

+11.19 = ℄ Crossing			27.35	11.11 / 4.72 / c 6.39 / 10' x conc.	
6+07.43			27.26	11.20 / 4.80 / c 6.40 / 10' Crossing	
+99.595			27.09	11.37 / 5.87 / c 5.50	
+91.72			26.92	11.54 / 5.06 / c 6.48	
+83.865		50.00	26.74	11.72 / 5.33 / c 6.39	
+76.01			26.57	11.88 / 5.38 / c 6.51	
+68.155			26.39	12.07 / 5.67 / c 6.40	
+60.30		0.22			
+57.64 = R.C. RT.			26.22	12.24 / 5.63 / c 6.61	
+25			25.50	12.96 / 5.79 / c 7.17	
5+0			24.94	13.52 / 6.45 / c 7.07	
+25			24.38	14.08 / 7.01 / c 7.07	
TP	7.92	28.46	30.54		
+50		202.64	23.80	6.74 / 6.33 / c 6.47	
4+25			23.27	7.53 / 7.12 / c 6.15 / 10'	

3.77

Grader Canon St Storm Drain Talbot St Connection

83.5 +80.2	End			10.88 10.66	9.45 0.45 c8.96
75.5 +70.2	= ℄ of CO ⁴⁄₃ out			10.34	9.95 out
+50				38.64	11.65 4.35 c9.30 on Paving
+25				36.98	13.31 3.31 c10.00 5: Top
8+0				35.32	14.97 4.85 c10.12
+75				33.66	16.63 6.43 c10.20
+50 = Brk				32.00	18.29 7.96 c10.33
+25				30.82	19.47 9.54 c9.91
24.24					
7+00.76 = ℄ Std Lap				29.67	20.62 10.58 c9.58
13.26					
+87.50 = Brk				29.04	21.45 11.88 c9.57
TP	12.94	50.29	1.11	37.35	
+62.73				28.49	9.97 1.23 c8.74
+37.96				27.95	10.51 1.77 c8.74
8+24.77					
6+13.19 = PC				27.40	11.06 2.26 c8.80 5: Rt on Cb
		38.46			

Curb Inlet #1 Talbot x Hermoda Test

50.29 ℄

Top Curb				40.11	10.18 10.13 on Cb
Bottom Box				31.85	18.44 10.12 c8.32
TP	5.51	55.35	6.45	49.84	

Curb Inlet #2

Top Curb				50.00	5.35 5.01 c0.34
Bottom Box				44.00	11.35 5.01 c6.34
BM			3.34	52.01	N.W. BP 5 inverse on x Talbot 51.99

Water Main Grade Alley Block 8
Mountain View. From Landis to Highstreet
Between Chamouni & 16th St.

	+40			342.60	13.3 2.3 C5.9
TP		8.64	355.76	347.12	
	2+00			341.78	6.6 2.0 C4.6
	+60			341.16	7.7 3.6 C4.6
	1+20	=P.V.C.		340.75	7.6 3.6 C4.0
	+80			340.45	7.9 3.6 C4.3
	+40			340.15	8.7 3.8 C4.4
	0+00	=N.L. Landis		339.85	8.5 4.1 C4.4
BM		7.39	348.39	341.00	NW 89 Landis + Chamouni

Cross Sec. 18 15. 34
Stakes offset 4'
E of ℄ Ditch

Jan. 21. 49
S. Ross
Smith
Becker
Berger

58

	+86.94 = SL. W. 94 to 95		342.60	13.3 2.3 C5.9
	Top Curb East	9.24	346.57	
	+46		345.61	10.3 5.3 C4.8
	5+06 = P.V.C.		346.74	9.0 5.0 C4.0
	+60 = E.V.C.		346.88	8.9 4.3 C4.6
	4+20		346.82	8.9 4.3 C4.2
	+86		346.31	9.5 5.1 C4.4
	+40 = P.V.C.		345.38	10.7 5.7 C5.1
	3+10		344.51	11.3 6.2 C5.2
	3+80 = E.V.C.		343.65	12.1 7.1 C5.0

355.76

Sewer Grades Venice St. Newport Ave to Hiller
South of Niagara Ave

22329

3+00				213.45	9.57 3.25 C6.09
BM			5.59	217.70	SW 88 Niagara + Venice 217.72
+55				211.56	11.23 5.98 C5.25
2+10				209.67	13.12 2.30 C5.32
+65				207.78	14.51 10.85 C4.21
TP	363	213.89	13.03	210.26	
1+20				205.89	8.00 4.03 C3.97
+75	MH #1 ∠90° & Venice			204.00 ↓ 203.71	9.89 5.98 C4.11 10.45 5.78 C4.45
+395				203.34	10.55 6.19 C3.87
0+00	= Existing Sewer			202.96	10.93 6.27 C4.66

INDEXED
W. K.
JUL 28 1949

So. of Smith's Corner

W.O. 80139

Stakes offset & Profile Ditch

Venice

Niagara

Hiller

Newport

BM	4.45	234.59		230.14 SW BP Newport + Venice
+95 D.E.			224.94	9.65 3.54 C6.11
5+05			223.02	11.57 5.98 C5.58
465			221.10	13.49 7.89 C5.60
4+25			219.18	15.41 9.83 C5.58
385			217.26	17.33 11.86 C5.47
3+45 = MH #2			215.34	19.25 13.85 C5.40
TP	1.55	223.29	12.85	221.74

Grader Curb Inlets + Culverts
Contour Blvd. + 52nd St

Sketch Page 62

+77.4				374.92	9.09 2.66 C0.42
+46	= 1.5' S of P.I. Contour Curb Top			377.91	6.03 2.99 C3.54 Nat'l
	= ℄ Clean Out 1.07 3.51 F1.44		382.87	378.80	
+27	= 379.08 Top Watermain			379.22	C2.65 South
TP	2.51	383.94	5.58	381.43	
1+30.5				379.36 378.92	8.09 5.22 C2.87 7'W
					C2.43 Concrete
+95	℄ Curb Inlet 3.59 3.54 C0.05 10	Curb Top 383.42		379.92	7.09 4.22 C2.87 7'W
+77	Cb BC			380.10	6.91 4.00 C2.91 7' South
+50			0.10	380.37	6.64 4.65 C1.99 7' South
+25				380.62	6.39 4.93 C1.46 7' So
0+0	= W/4 + Inlet 12" Conc Pipe			380.87	6.14 4.92 C1.22 7' South
BM Set			2.42	384.59	SE RP Contour + 52nd 6 7 E. Hdg 6 7 South 6+77.45 1601.25
BM	1.27	387.01		385.74	

Feb 1-49
S. S. Sorensen
Smith
Becker

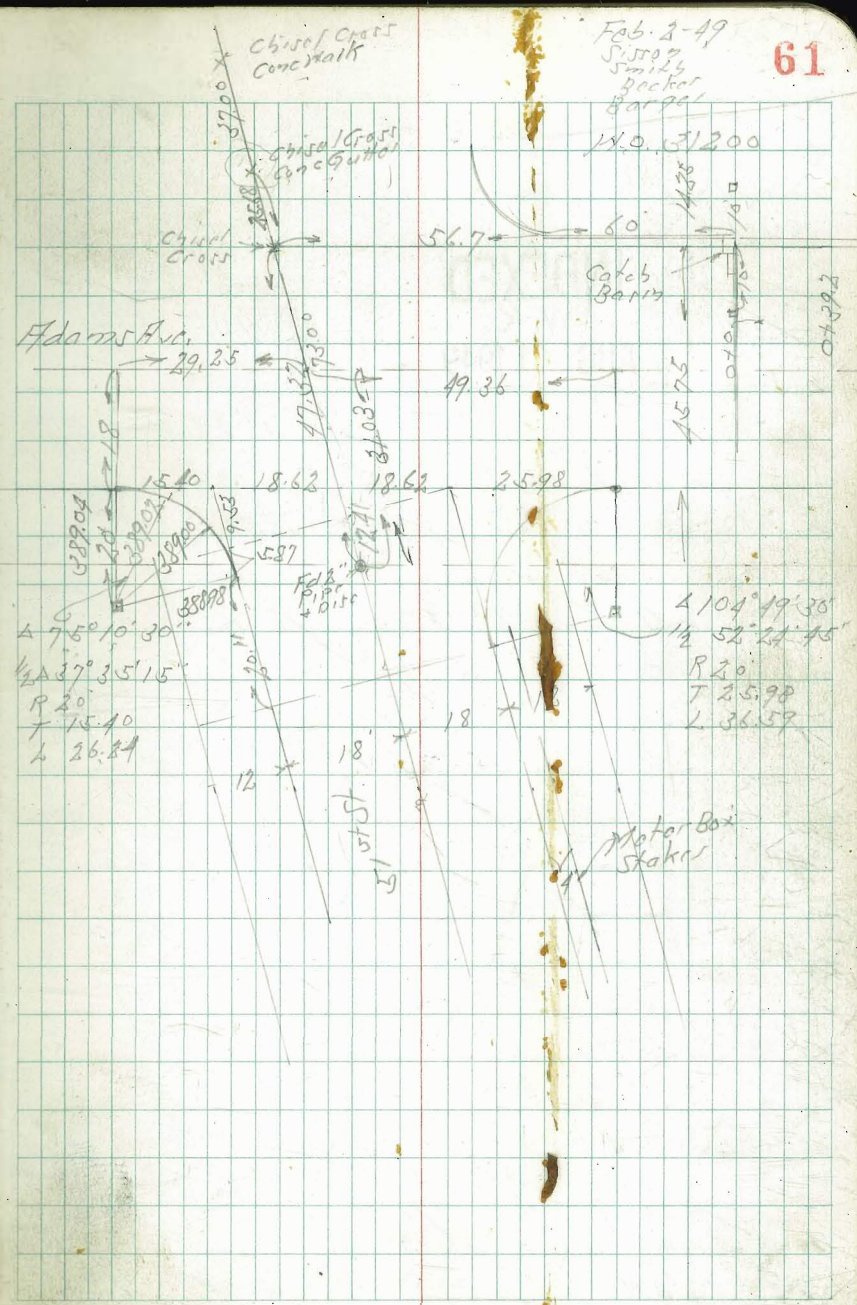
Stakes offset 7' South

1+50 7' West of 2 Inlets					Barrier 10 8.13 00
					Flow Lines
3+23.5	RP 7' W + 7' S		Top of Wall 362.80 1.68 10.81 F5.73 7'W	360.30	7.18 10.61 F3.43 7'W
+97.5				362.90	4.58 5.42 F0.84
TP	1.89	367.48	12.78	365.59	
TP	3.78	378.37	9.35	374.59	
+71.5 = End Contract				365.50	18.44 14.96 C3.48
+40.2				368.64	15.25 9.85 C5.40
2+08.8			0.10	371.78	12.16 6.87 C5.29 7'W
				383.94	

Grader Curb & Gutter and Culvert
Adams Ave East of 51st St.

				Flow Line	
+83.49	R.P. 10'N 10'S	Top Wall 359.90		357.40	11.56 12.45 F 0.89 10'N
TP	3.85	368.96	1290	365.11	2.96 5.06 C 2.90
+54.25				370.05	
TP	1.11	378.01	1315	376.90	14.55 7.13 C 7.42
+39.21				375.50	
BM	1.20	390.05		388.85	N.W. P.R. Adams & 51st St.
+21.52				377.70	14.75 6.22 C 8.53
+15.88				381.05	11.40 5.26 C 6.14
0+0	60' E of E.C. 51st Curb & Gutter	Top C 6.15 386.30 C 1.19		383.00	9.45 4.96 C 4.49 10'N
NE Top Curb Adams & 51st			4.88	387.57	
BM Set	3.60	392.45	6.55	388.85	
	5.86	395.40	3.55	389.54	
BM	3.76	393.09		389.33	

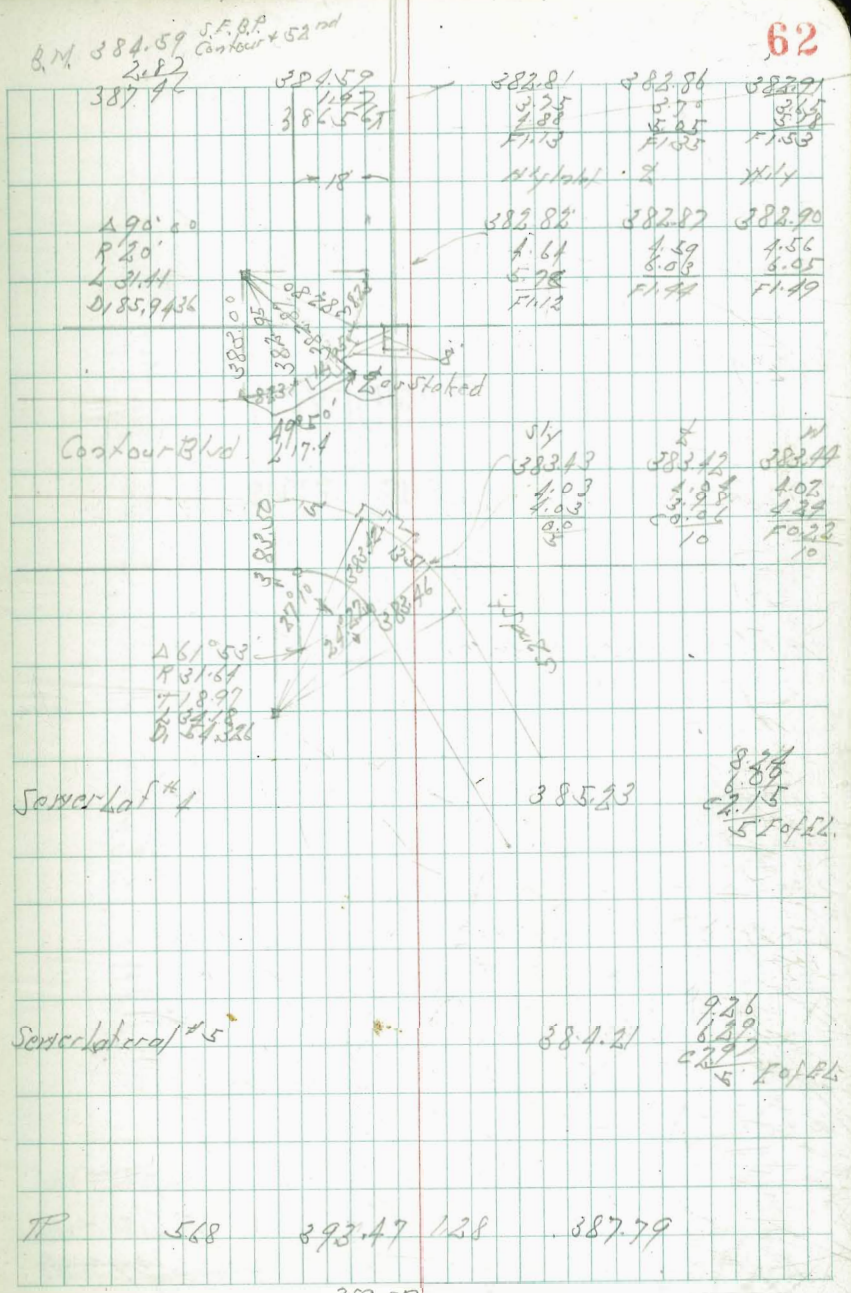
Feb. 2-49
Sisto
Smith
Becker
Barnes



Contour Blvd. Sewer Laterals

1+09.36	End Lot 31 & 32			381.76	7.87 9.61 F2.00 5" N
+84				381.59	7.48 8.17 F0.69 6" N
+56				381.39	7.68 8.45 C1.45 6" N
+28				381.20	7.87 8.81 C1.06 6" N
#6 0+0	= Exist MH.		8.13 FL. 380.94	381.00	8.07 8.04 C3.03 on Rim
BM	4.48	389.07		384.59	S.E.B.P. Contour +52nd
#3				383.96	7.99 5.41 C1.78 6" Fan
BM	6.66	391.25		384.59	S.E.B.P. Contour +52nd Poplar
Lateral #2				386.55	9.69 4.67 C5.62 6" N
Sewer Lateral #1				385.86	10.38 5.45 C4.93
BM	4.16			392.08	Half Pole Monroe + Contour #1601-16

INDEXED
W. K.
AUG 1 1949



Dawson Hwy Grades El Cajon Blvd to Contour Blvd

		Work Carb		East Carb.		
		391.38				
2+28.20		385.66		386.41		
+85.05 = Z Fill on E		385.44		386.23		
+47.55		385.25		386.07		
1+10.05 = Z Fill on W		385.05		385.92		
+65.02		384.83		385.73		
+20 = Brk		384.60		385.55		
+10.4 = N.L. of Ecan						
0+0 = N.L. El Cajon Boulevard						
			5.66	385.72	385.65	Cb. NE P.L. El Cajon & Dawson
			7.41	383.97	384.10	Cb. NW P.L. El Cajon "
~~B.M.~~				Gone	~~393.88~~	~~SW BP 5.8 Ft E/Cajon~~

INDEXED
WK
AUG 1 1949

5+7
5+6
CO 1
5' off.

5+9
4+2
C1 7
5' off

6 1
5+2
CO 9
5' off.

6+3
5+1
C1+2
5' off.

6 6
6+2
CO 4
5' off

6 8
7 4
FO 6
5' off

5+0
3+0
C2+0
5' off

5+3
2+5
C2 2
5' off

5+3
1+4
C3+9
1' off

5+5
1+3
C4+2
1' off.

5+7
1 7
C4+0
1' off

5+8
1+7
C4 1
1' off

Dawson Hwy

		Westcarb	Eastcarb	
	0.27	391.38	391.11	from P. 65
+95.05	=17.Marine	387.00	387.50	
+87.05	=08.84	386.96	387.47	
+43.91		386.74	387.29	
4+00.77		386.52	387.12	
+57.63		386.31	386.94	
3+14.99		386.09	386.76	
2+71.84		385.87	386.58	

X 2
3 4
C1 0 /
5' off.

X 6
X 2
CO 4 /
5' off.

X 9
X 4
CO 5 /
5' off.

5 1
X 8
CO 3 /
5' off.

5 13
C 10 3 /
5' off

5 5
5 0
CO 5 1 /
5' off.

3 9
1 7
C2 2 —
5' off

X 1
1 9
C2 3 —
5' off.

X 3
2 8
C1 5 —
5' off.

X X
3 1
C1 2 /
5' off.

X 6
3 2
C1 X —
5' off

X 8
3 7
C 1 6 /
5' off.

Dawson Hic.

		Westcarb		Eastcarb	
BM	6.03	390.62			384.59
240 = BCLt		387.96			
T.P.	5.63	394.90	1.35	389.27	
+80		388.20			
+40		388.40			
+1316	BC. out	out		389.00	
140	= PVC.	388.40		388.88	
+55		388.00		388.49	
+10	= Prop EC. out E. out			388.10	
+08	= C6 EC. W	387.57			
0+0	= HLM Monk	387.50			
TP			3.79	391.11	

SEBP 52nd & Contour

2.7
1.3
C1.4
5' off

6.7 Rod
5.6
C1.1
5' off

6.5 Rod
5.4
C1.1
5' off

5.9
4.7
C1.2
5'

6.5
5.7
C0.8
5' off

6.9
6.2
C0.7
5' off

7.3
6.0
C1.3
5' off

5.9
4.7
C1.2
5' off

6.0
5.8
C1.3
5' off

6.4
5.2
C1.3
5' off

6.8
5.6
C1.2
5' off

SE Top F Hydt.

Contour Blvd. Grader

		West Curb	East Curb
9+96.48			388.09
9+50.92	Cb BC on N.	389.10	388.57
1+07.41		389.57	389.03
0+63.91		390.03	389.49
0+20.41	Cb EC on N.	390.50	389.95
0+0	: Prop PI out		
0-23.20	: Cb EC Rt		390.41
0-31.20	: N.L. Monroe on East		390.50

Contour Blvd.		Westbound		Eastbound
+69.01		385.58		384.83
5+33.86		385.94		385.10
5-36.15				
+9.71 =	B.C.	386.30		385.38
4+47.02		386.60		385.79
+97.33		386.90		386.19
3+47.64		387.20		386.60
+97.95	E.C.	387.50		387.00
+57.52 =	E.L. Dam #7			387.44
	E7 Exit			
2+42.04				387.60

Contour Blvd.

		West Curb	East Curb
+75.88	C&EC.	383.54	382.00
7+67.33	W.L. St.	383.50	382.95
+			
7+07.33	E.L. St.		382.80
+99.33	C&EC.		383.85
6+77.45	E.C.	384.50	384.00
+41.81		384.86	384.28
6+05.16		385.22	384.53

Contour Blvd

	28°31'			
10+77.66	EC. on E	386.77		386.00
31.85	= 25.94 on E			
+40.81	17°54'			385.70
85.73	= 29.14 on E			
10+05.08	11°36'			385.10
32.90	"			
+71.18	5°48'			384.60
38.90	= 26.82 on E			
9+39.28	BC. on E	384.60		384.10
+99.28		384.20		383.70
+81.28		384.10		382.60
+45.87		383.92		383.40
8+10.46		383.73		383.20

51st St. Grade Contour Blvd. to Adams Ave.

		West Curb		East Curb	
TP (W)	5.37	393.32	3.30	387.95	(E)
+85.44		387.93		387.48	
(W) +74					387.43
+44.24		387.79		387.30	
(W) +40					387.28
TP	5.50	393.40	3.28	387.90	
2+03.04		387.65		387.11	
(W) +84					387.03
+61.84		387.51		386.93	
(W) +46					386.85
1+30.64 = Brk		387.87		386.74	
(W) 0+99					386.61
+80.42		387.17		386.49	
(W) +52					386.32
+40.21		386.97		386.25	
0+00 = 10+72.66 E.C. Contour		386.77		386.00	
0-18.3		386.70			
BM	7.09	391.68		384.59	SE BP Contour Sta
(W) BM	6.66	391.25		384.59	

51st St. Grades

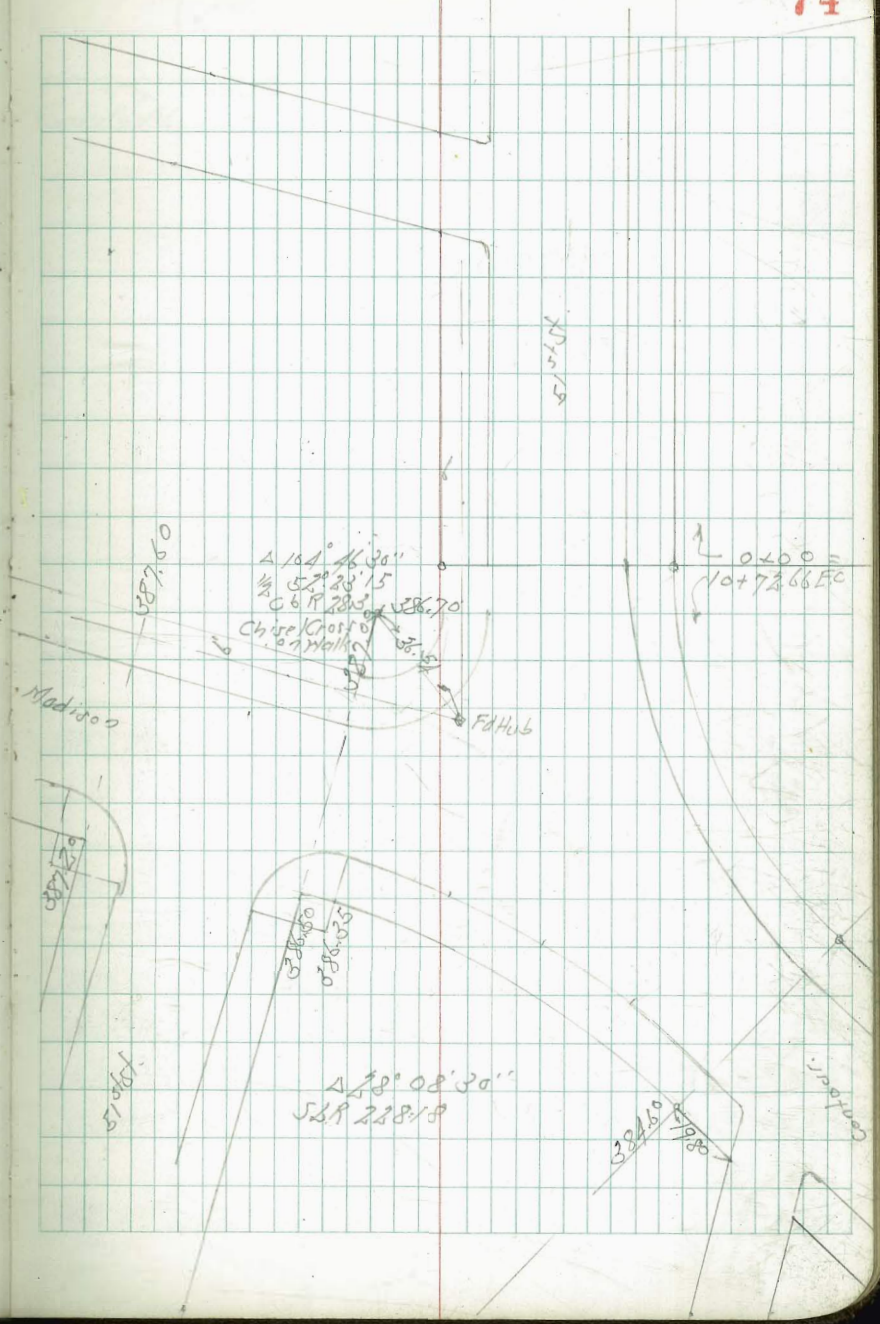
		West Curb		East Curb	
BM			4.60	388.80	NW BP Edge of 51st 388.85
+32.15	= B.C. 0.77%	388.98 4.4 3.1 C1.3 on Rad.			
+120.4	B.C. 0.0 E	out		388.76 4.6 out	
6+00		388.89 4.5 3.4 C1.1 5		388.71 4.7 4.4 C0.3 5	
W +71					388.60 4.72 4.51 C0.21
+50		388.74 4.2 3.2 C1.0 5		388.52 4.9 4.8 C0.1 5	
W +17					388.39 4.93 4.78 C0.15
5+00		388.58 4.8 3.7 C1.1 5		388.32 5.1 4.9 C0.3 Hall Wall 5	
W +87					388.28 5.04 4.82 C0.22
+50	0.0398	388.44 5.0 3.6 C1.4 5	0.0382	388.14 5.3 5.0 F0.6 5	
W +40					388.10 5.24 5.13 C0.10
4+00		388.29 5.3 3.8 C1.4 5		387.95 5.4 5.5 F0.5 5	
W +93					387.92 5.40 5.32 C0.08
+50		388.14 5.4 4.3 C0.9		387.76 5.6 5.8 F0.2 5	
W +43					387.69 5.69 5.61 C0.08
3+26.64	= Brk	388.07 5.3 5.2 C0.1 5 - Street		387.67 5.7 5.6 F0.3 5	
		593.40			

Monroe Ave. Grades 5th and 7th to Contour Blvd.

		N C6	S C6
+70	W.L. Dam	387.50	387.00
+62	C6 EC.	387.43	386.94
2+23		387.09	386.66
1+84		386.76	386.37
+45	E.L. Hilly	386.43	386.08
1+25	W.L. Hilly	386.26	385.93
+86		385.93	385.64
+47		385.60	385.35
39			
+08	C6 EC.	385.27	385.06
0+0	Fort Hunter Rd.	385.20	385.00

Monroe Hwy Grading
South Carolina Stationing

		N Cb		So. Cb
2+43.38	= E.L Cambor			390.50
+83.38	= Cb EC So.			390.90
+91.5	= Cb BC So			391.00
+50				390.70
+35	= ℄ Ditch		0.43	390.51
1+10				390.20
+90.44	= Cb BC No.	389.90		389.75
+63.62		389.48		389.14
+36.81		389.06	0.22	388.63
+10	= Cb EC No.	388.65		387.92
+08	= Cb EC So.	out		387.88
0+0	= E.L. Dowing	388.40		387.70


Δ 104° 46' 30"
½ C 52° 23' 15"
C 104° 46' 30"
Chord 387.60
Chord 387.60
Madison
Fd Hub
Δ 78° 08' 30"
Tangent
Tangent
Tangent
Tangent

4-5-49 State Rough Grades Contour Blvd.
Hendricks 51st. to 52nd. Sts.
Greer
Torer
Wox

			- Lt.	Ck El Lt.	El Stake Lt.	Cor F Lt.	- Rt.	Ck El Rt.	El Stake Rt.	Cor F Rt.
CK -			2.40	386.75	386.77	CK BC 0+00 on East 51st St.				
7+75.06	Ck EC Lt.		7.3	382.00	381.9	F1 ½	C5	383.52	382.7	FO ⅝
8+10.46			7.1	382.20	382.1	F1 ½	7.0	383.72	382.2	F1 ⅝
8+45.87			6.4	383.40	382.8	FO ¢	7.0	383.91	382.2	F1 ⅞
8+81.28			5.0	383.60	384.2	CO ¢	C3	384.10	382.9	F1 ⅛
8+99.28			5.0	383.70	384.2	CO ½	C3	384.20	382.9	F1 ⅜
9+39.28	BC		5.0	384.10	384.2	CO ¼	3.9	384.60	385.3	CO ⅞
								389.15		
BM 7	4.56	389.15			384.59	SHEET Contour @ 52nd.				

Paving Grade S St. 30th St to Bancroft

31st St

4-25-49

Paving Stakes

30th St

3M

77.01

SWBP S St + 30

3M 77.01 SWBP S+30th

3M 76.72 SFBP S+31st

77.01 SWBP S+30th

SFBP S+31st

77.00

3.94 3.97 on Pav

3.67 5.67 on Pav

SWBP S St + 30

30th St

Feb. 2-49 Sisson Smith Bicker Barger

W.O. 31209

Parent Bench (75.32) = Sub Grade

32nd St

8N N 44 47

3M 76.65 SFBP

Paving Grade 76.65

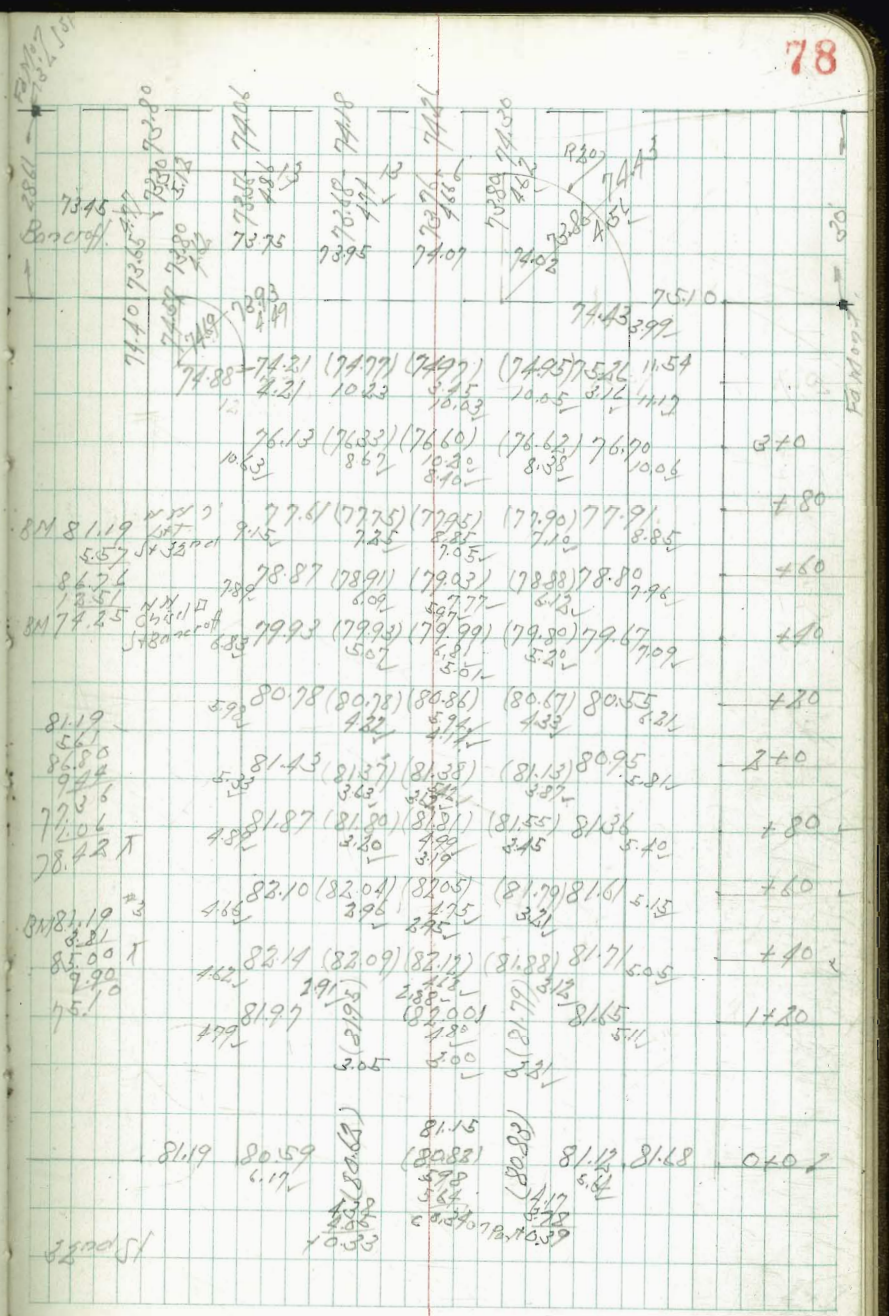
8 15th St

BM SFBP 76.65

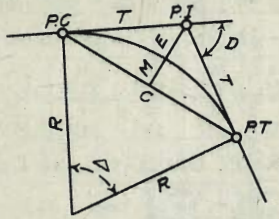
Paving Grader J St.
3045 to Bancroft
SE J St x Bancroft

April 12-49
Simons
Roberts
Clark

BM	3.82	85.01	81.19	NW J+T J St + 32 NW	
0+0 = BC 44.50 R			75.01	10.00 9.93 on C6	
+07.85			74.72	10.89 11.40 F1.11	
+15.70			74.43	10.58 11.77 F1.19	
+23.55			74.37	10.66 12.10 F1.46	
+31.425 C			74.30	10.71 12.03 F1.32	
+37.42			74.26	10.75 12.03 F1.28	
+50.42			74.18	10.82 11.49 F0.67	
+63.42			74.06	10.95 11.96 F1.01	
+77.42 : NL S			73.80	11.24 12.24 F1.03	
	NW S x Bancroft				
0+0 = BC 44.10 Rt			74.88	10.43 10.09 on C3	
+07.85 = 7/8 Rct			74.69	10.33 10.47 F0.09	
+15.71 = EC			74.57	10.44 10.45 F0.01	
+19.71 = NL			74.40	10.61 10.33 C0.27	



DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES



CURVE FORMULAS

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

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

Middle ordinate=$M=R(1-\cos.\frac{\triangle}{2})$ (5)=$R\text{vers}\frac{\triangle}{2}$ (6)

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

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

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.=Sta. 161+60.35 to find Sta. of P. C. and P. T. $\triangle=62°\ 10'$ $D=8°\ 20'$. From Table IV for 1° curve T=3454.1 and $\div 8\frac{1}{3}$=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=$7.27\ (54.50\div 100)^2$=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=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 $8\frac{1}{3}$=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 115.37. For from Table IV for 1° curve E=960.6 for 8° 20′=$960.6\div 8\frac{1}{3}$=115.27 and from Table V correction=.10 or E=115.37 ft. Or suppose $\triangle=32°$ 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′.

53
26.5

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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