1712

ENGINEERS'

LEVEL BOOK

No. 4105

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.

1712

CITY ENGINEER'S OFFICE

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.

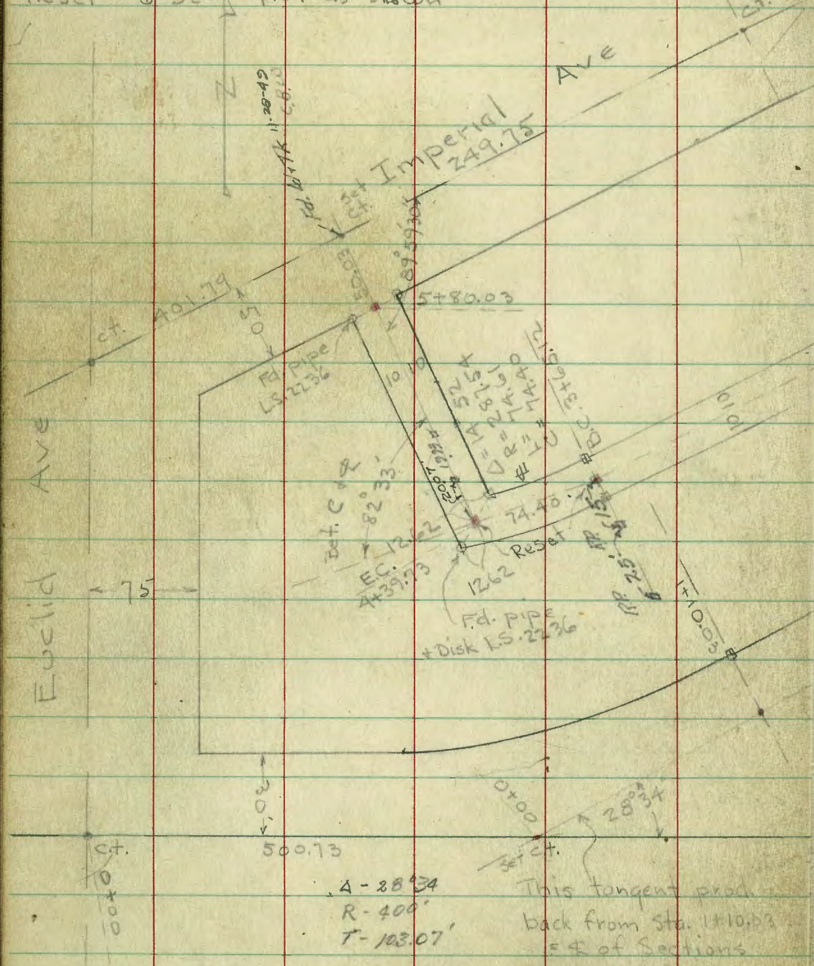
Tie points - Las Alturas Nos 2 + 4

Begin 4-19-46 Osborne Hardin Carey Kreft Plotted T.R.S-3335-4

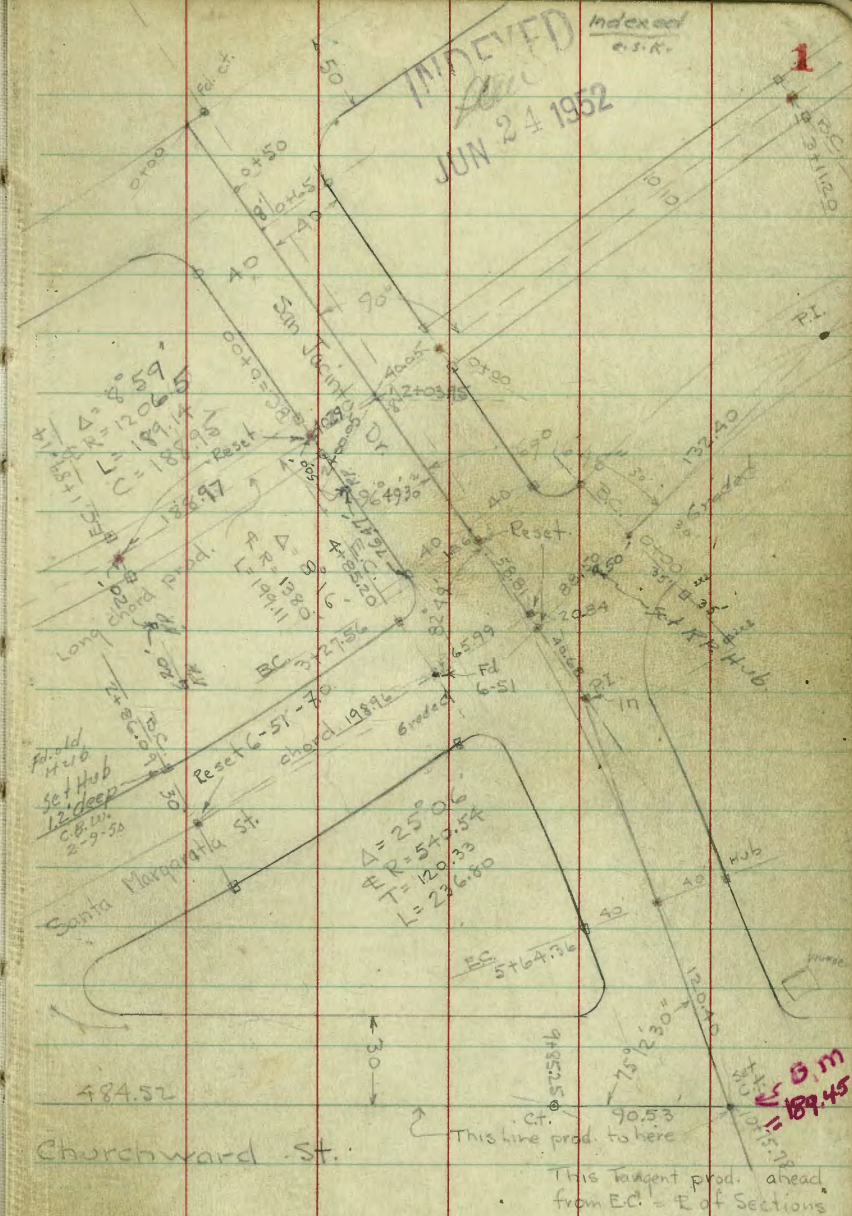
Fd. old Hubs - shown thus:

Set Hubs - shown thus:

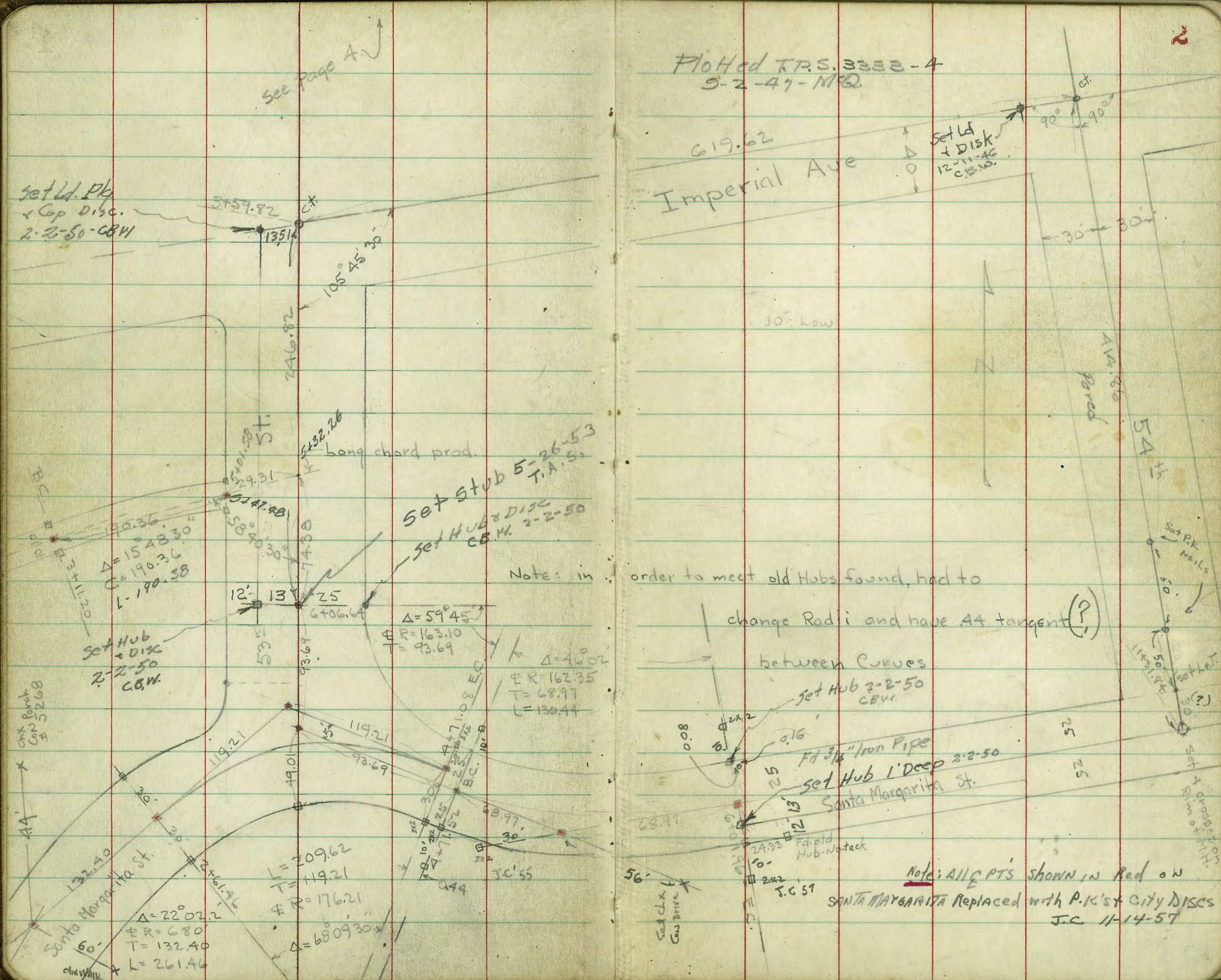
Reset - 6-52 - 7.0. as shown



Indexed e.s.k.



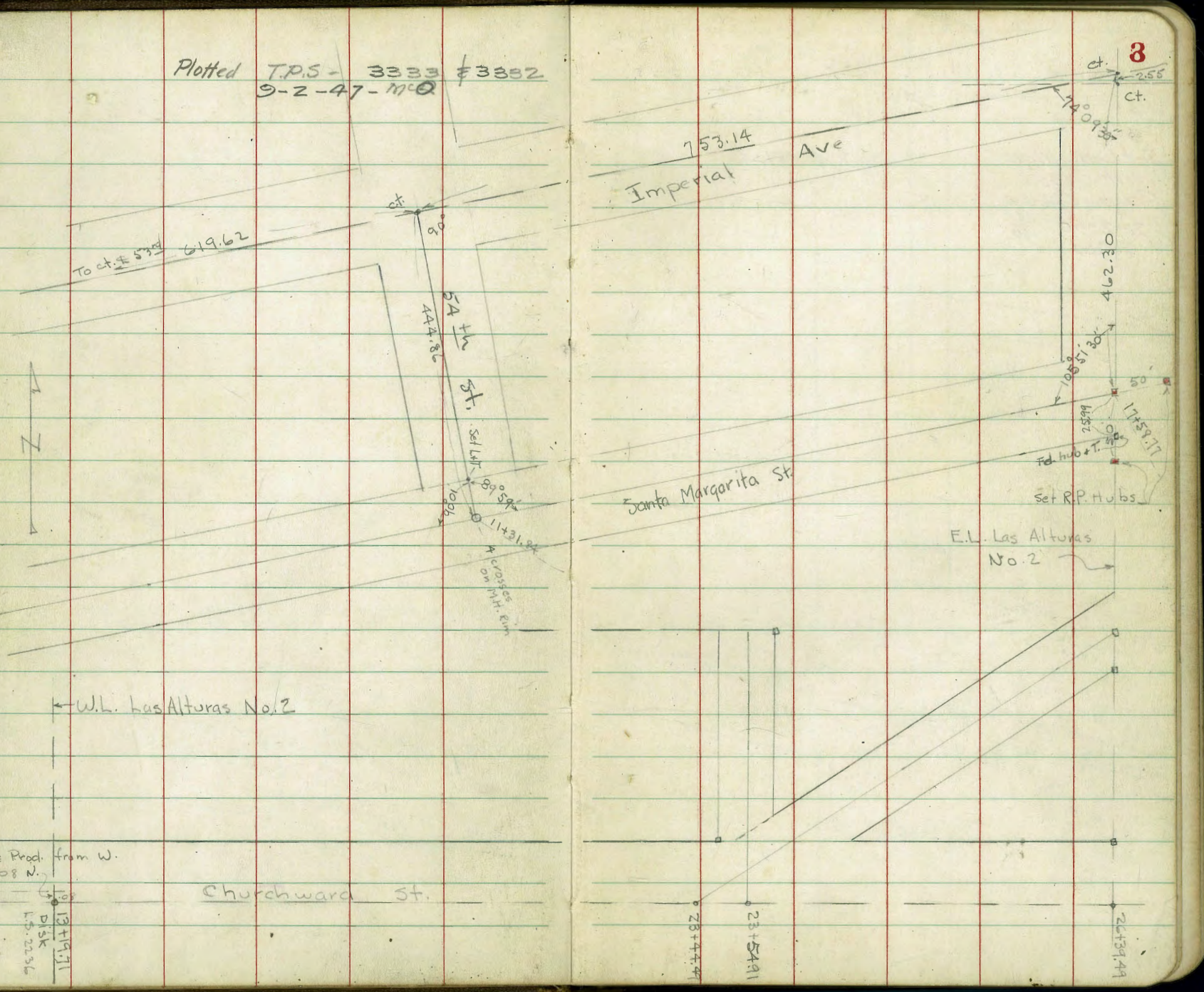
Plotted T.P.S. 3333-4
9-2-47-MRQ

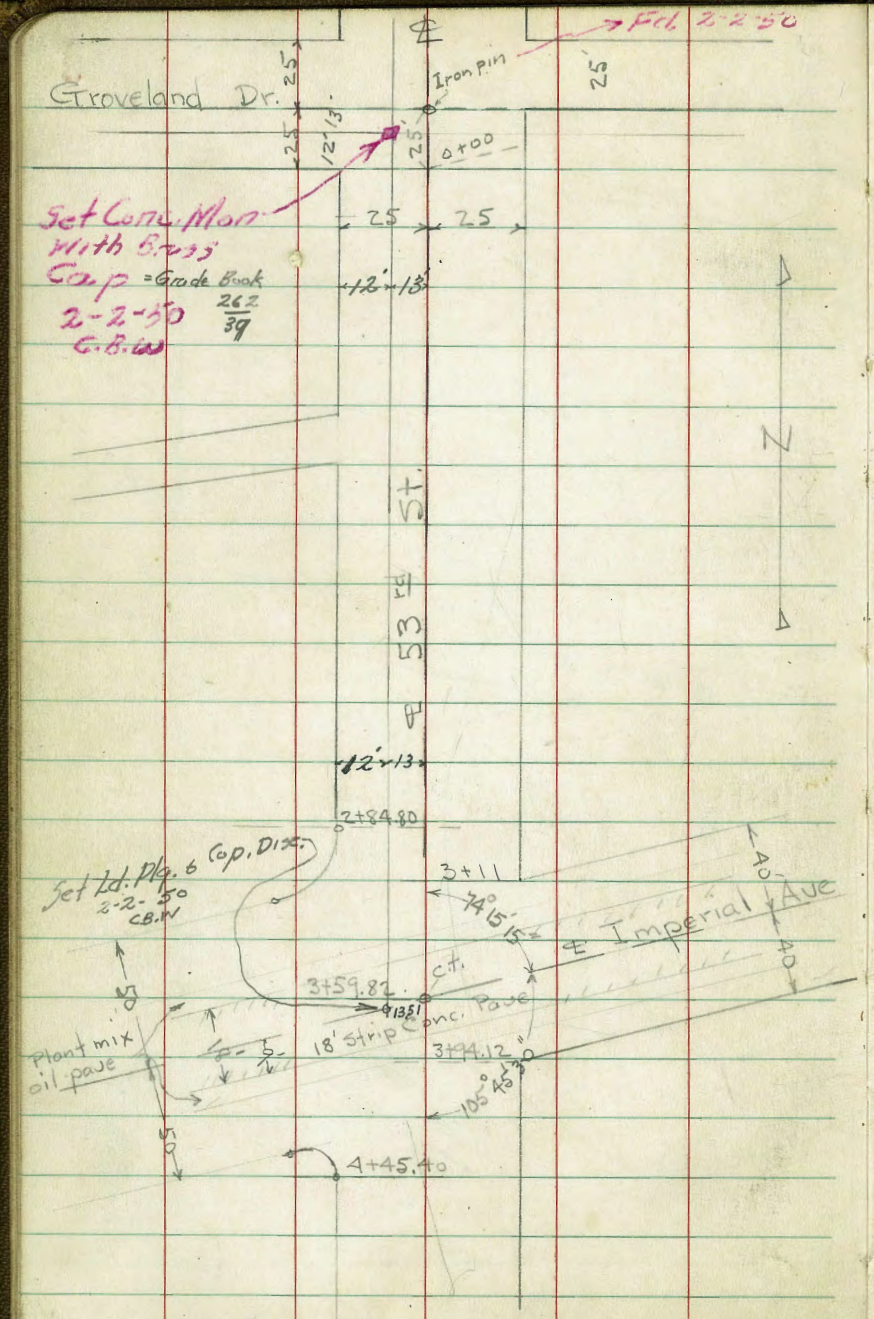


Note: in order to meet old Hubs found, had to change Radii and have 44 tangent (?) between Curves

Note: All ℄ PTs shown in Red on SANTA MARGARITA Replaced with P.K's & City Discs J.C. 11-14-57

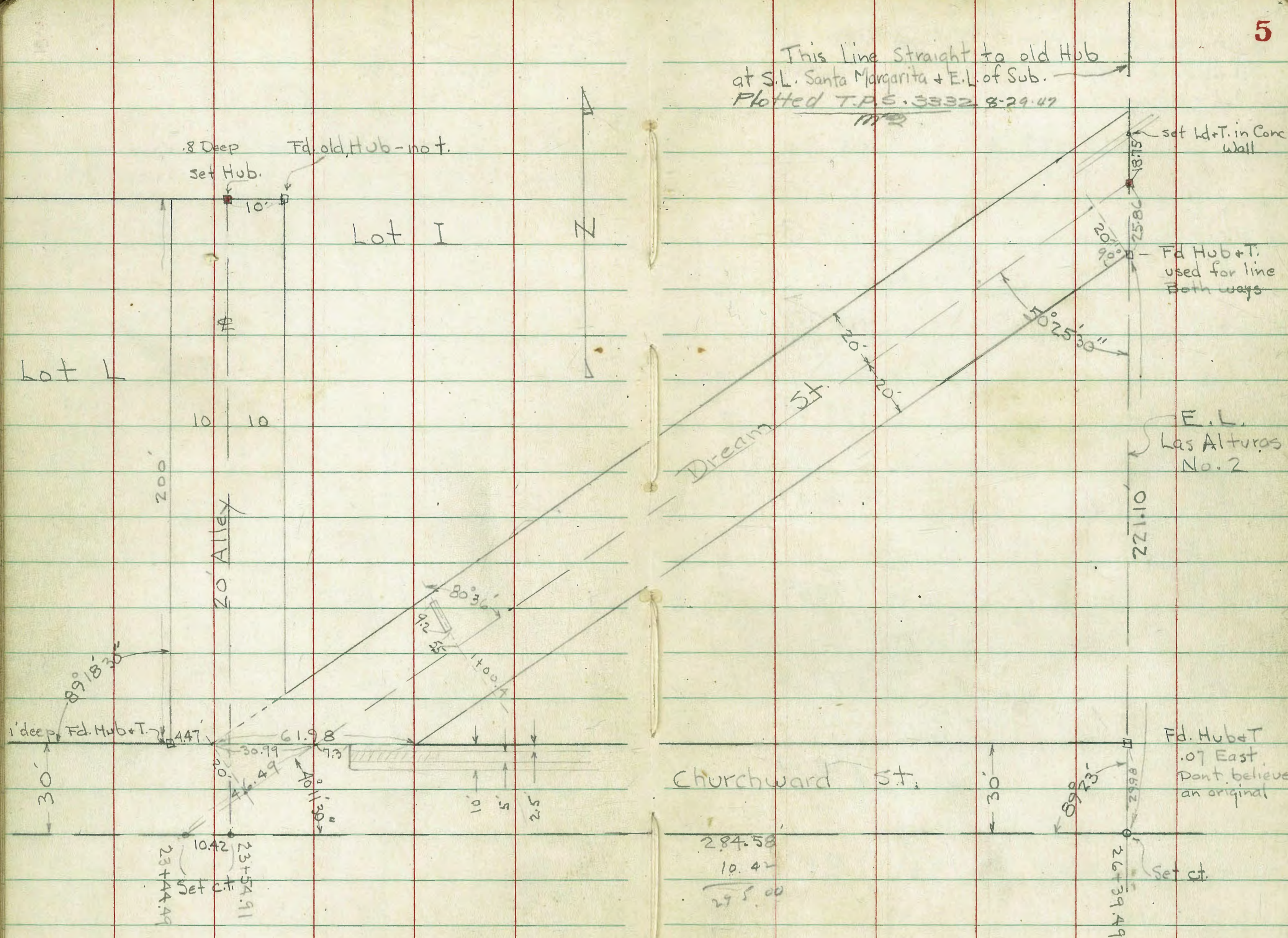
Plotted T.P.S - 3333 & 3382
9-2-47 - McQ





Plotted T.R.S - 3333
8-29-47 DW2

Note: Ties set by C.B.W. on Account Sewer Construction which will destroy ℄ Points. 2-2-50 C.B. Walker


This line Straight to old Hub
at S.L. Santa Margarita + E.L. of Sub.
Plotted T.P.S. 3332 8-29-47
.8 Deep
Set Hub.
Fd. old Hub - no t.
10'
Lot I
N
Lot L
10
10
200'
20' Alley
89°18'30"
1' deep
Fd. Hub + T.
4.47'
61.98
30.99
7.3
20'
46.49
40°11'30"
10.42
23+44.49
23+54.91
Set c.t.
10'
5
2.5
80°36'
1+00
Dream St.
20'
20'
50°25'30"
set Ld + T. in Conc. Wall
18.75
25.80
20'
90°
Fd Hub + T. used for line Both ways
E.L. Las Alturas No. 2
221.10
Fd. Hub + T
.07 East
Dont believe an original
89°23'
29.98
Churchward St.
30'
30'
284.58
10.42
295.00
26+39.49
Set ct.

Rods around Ret. - N.E. Cor. Santa Margarita & Churchward. - 0+00 = PC Curb Ret. = 2' E. of Radial Line from Prop. PC. 11-16-49 - 7.0. cb. Rad = approx - 50' as built

c.t. - P 34

B.M.	+ 0.20	189.64		189.44	
= To F.					
0-37.2 = W. end opening			10.01	179.63	Top
			10.94		gut.
0-20			10.06	179.58	I
			10.78		q
0+00 = PC Ret.			10.15	179.49	I
			10.62		q
0+05 - around Ret.			10.17	179.47	I
			10.61		q
0+10			10.07	179.57	I
			10.57		q
0+15			10.00	179.64	I
			10.58		q
0+20			9.90	179.74	I
			10.44		q
0+24.6 = end of Ret.			9.82	179.82	I
= 2.2 S. of N.L.			10.39		q
0+28.3 edge of Pave = N.L. on approx. 50' Rad. Cont.			10.33		= pave

Indexed.
C.S.K.

X-Sect. Santa Margarita St. 60'
Churchward to San Jacinto.

1+10.03 = opp. prop. P.C. on Lt.

Plotted am

0+72

0+62.69 = N.L. Churchward

0+10

℄ = Tangent prod. back from sta. 1+10.03

0+00 = ℄ Churchward + ℄ Santa Margarita prod.

Conc. Pave. + cbs. + Walks.

T.P.	4.40	190.43	5.61	186.03
B.M.	6.79	191.64		184.86

B.P. scb. Imperial + Churchward

	Lt.			℄		Rt.	
	178.03	179.23	178.83	178.93	180.93	181.09	181.12
	12.4	11.2	11.6	11.5	9.5	9.34	9.31
	45	30	15		18	26.1 = edge Pave	35
181.43	183.03	182.73	182.68	184.03	182.40	182.34	
9.0	7.4	7.7	7.8	6.4	8.03	8.05	
70	50	32	15		5 = edge of Pave	20 on pave	
182.63	183.93	184.53	179.53	185.93	182.64	182.65	
7.8.	6.5	5.9	6.9	4.5	7.79	7.78	
70	50	35	20	4	= edge of Pave	15 = on pave	
185.43	186.93	187.23	184.39	184.26	184.29		
5.0	3.5	2.7	6.09	6.17	6.14		
70	50	33	29	15	= edge of pave		
~~185.43~~ 187.2	185.63	185.91	184.69	184.71	184.58		
4.0 3.2	4.8	5.02	5.74	5.72	5.85.		
65. 50	15	36.3 Top	36.3 = end of curb returns	15			

190.43

Santa M.

Sta.					Lt.			℄			Rt.	
2+86.09 = B.C.					11.3/45 167.64	10.7/30 168.24	11.1/15 167.84	10.6 168.34	10.0/15 168.94	9.0/30 169.94	7.3/45 171.64	
2+50					12.8/45 166.14	12.0/30 166.94	10.9/15 168.04	10.1 168.84	9.3/15 169.64	8.6/30 170.34	7.5/45 171.44	
2+10					12.3/45 166.64	11.2/30 167.74	9.7/15 169.24	9.1 169.84	7.6/15 171.34	6.9/30 172.04	6.0/45 172.94	
1+75					7.9/45 171.04	7.3/30 171.64	5.8/15 173.14	4.4 174.54	2.9/15 176.04	2.5/30 176.44	2.4/40 176.54	
T.P.	1.28	178.94	12.77	177.66				178.94				
1+50					18.7/45 171.73	16.6/30 173.83	13.6/15 176.83	13.1 177.33	13.2/15 177.23	12.2/26 178.23	10.4/30 180.03	10.4/45 180.03

178.94

190.43

				Lt.			℄		Rt.	
	5.69	173.25	173.27							
T.P. on ℄ Hub. at E.C. 4+85.20										
4+85.20 = E.C. opp. prop. P.C. on Lt.				40 / 7.2 / 171.74	30 / 6.2 / 172.74	15 / 6.2 / 172.74	5.4 / 173.54	15 / 4.9 / 174.04	30 / 3.4 / 175.54	40 / 1.8 / 177.14
4+50				40 / 7.3 / 171.64	30 / 6.3 / 172.64	15 / 6.3 / 172.64	5.0 / 173.94	15 / 4.5 / 174.44	30 / 2.7 / 176.24	40 / 2.0 / 176.94
4+00				45 / 7.1 / 171.84	30 / 7.1 / 171.84	15 / 6.4 / 172.64	5.6 / 173.34	15 / 4.7 / 174.24	30 / 3.0 / 175.84	40 / 1.5 / 177.44
3+50				45 / 9.2 / 169.74	30 / 7.6 / 171.34	15 / 7.6 / 171.34	6.7 / 172.24	15 / 5.0 / 173.94	30 / 4.0 / 174.94	40 / 3.1 / 175.84
3+20				45 / 9.4 / 169.54	30 / 8.3 / 170.64	15 / 7.7 / 171.24	7.5 / 171.44	15 / 5.8 / 173.19	30 / 4.4 / 174.54	40 / 3.2 / 175.74

178.94

F.O. S-2-46

Indexed C.S.K.

X-Sect. of San Jacinto Dr. 80'

Imperial Ave. to Churchward

Plotted am

1+50

1+00

0+65 = opp. prop. P.C. on Lt.

0+50 = S.L. of Imperial to Lt.

Rods to Rt. taken on curved edge of pave

0+09 = S. edge of 18' Strip Conc. Pave on Imp.

0+00 = ℄ Imperial produced from E. + ℄ San Jacinto

B.M.	11.40	166.67		155.27	℄ Imperial at San Jacinto

	Lt.		℄		Rt.	
	142.37	162.37	160.07	159.77	159.87	160.37	160.87
	4.3 50	4.3 40	6.6 35	6.9 20	6.8 20	6.3 40	5.8 50
	159.47 7.2 50	159.57 7.1 40	157.87 8.8 35	157.67 9.0 20	157.67 9.0	157.47 9.2 20	157.57 9.1 40	157.67 9.0 50
	156.97 9.7 50		156.87 9.8 40	156.37 10.3 20	156.57 10.1	156.47 10.2 20	156.17 10.5 40	156.27 10.4 50
	156.27 10.4 55		156.37 10.3 40	155.77 10.9 20	156.07 10.6	156.47 10.2 20	155.77 10.9 40	155.67 11.0 55
	155.51 11.16 55		155.44 11.23 40	155.33 11.34 20	155.17 11.50 on pave	155.18 11.49 20	155.22 11.45 40	155.28 11.39 55

166.67

T.P.	9.74	186.27	0.35	176.53
3+50				
3+27.56 = B.C.				
3+00				
2+50				
T.P.	11.85	176.88	1.64	165.03
2+00				

Lt. 4 Rt

176.78	174.88	173.48	172.28	171.48	172.08	172.58	
0.1 50	2.0 40	3.4 20	4.6	5.0 20	4.8 40.	4.3 50	
175.38	174.88	171.38	170.68	170.28	170.78	171.18	
1.5 50	2.0 40	5.0 34	5.5 20	6.2	6.6 20	6.1 40	5.7 50
173.38	172.58	169.98	169.18	168.68	168.48 20	168.98 40	169.38 50
3.5 50	4.3 40	6.9 34	7.7 20	8.2	8.4	8.0	7.5
169.28	168.68	166.38	166.08	165.18	165.38 20	165.68 40	166.48 50
7.6 50	8.2 40	10.5 34	10.8 20	11.7	11.5	11.2	10.4
165.57	165.37	163.17	162.47	162.27	162.47 20	162.47 40	163.17 50
1.1 50	1.3 40	3.5 35	4.0 20	4.4	4.2	4.2	3.5

176.88

166.67

4+75					
4+50					
T.P.	12.34	191.30	7.31	178.96	on P.I. Hub.
check B.M. Hub P.10			13.00	173.27	173.29
4+25					
4+00					
3+75					

Lt. ℄ Rt.

4+75

Elev.	185.20	183.50	182.00	181.30	180.60	180.30	181.00	181.30
Rod	6.1	7.8	9.3	10.0	10.7	11.0	10.3	10.0
Dist.	50	40	37	20		20	40	60

4+50

Elev.	185.90	184.30	180.60	179.50	179.10	178.50	178.80	178.40
Rod	5.4	7.0	10.7	11.8	12.2	12.8	12.5	12.9
Dist.	60	46	40	20		20	40	60

4+25 (191.30)

Elev.		185.67	179.87	178.97	178.17	177.57	176.97	176.77	176.87
Rod	0.0	0.6	6.4	7.3	8.1	8.7	9.3	9.5	9.4
Dist.	80	65	50	40	20		20	40	60

4+00

Elev.	184.27	183.67	179.17	178.17	177.17	176.07	175.57	174.57	174.07
Rod	2.0	2.6	7.1	8.1	9.1	10.2	10.7	11.7	12.2
Dist.	90	82	70	40	20		20	40	60

3+75

Elev.	178.87	177.47	176.47	175.17	174.17	174.17	173.77	173.67
Rod	7.4	8.8	9.8	11.1	12.1	12.1	12.5	12.6
Dist.	80	60	40	20		20	40	60

186.27

Station				
6+25				
6+00 – ℄ is Forward tangent produced. see sketch				
T.P.	5.54	194.55	2.29	189.01
5+64.36 = E.C.				
5+30				
5+00				

Lt. ℄ Rt.

Station										
6+25	$\frac{1.6}{50}$ 192.95		$\frac{3.0}{40}$ 191.55	$\frac{3.4}{38}$ 191.15	$\frac{4.6}{20}$ 189.95	5.1 188.45	$\frac{5.8}{20}$ 188.25	$\frac{5.7}{40}$ 188.85	$\frac{6.2}{50}$ 187.35	
6+00			$\frac{2.8}{50}$ 191.75	$\frac{3.5}{40}$ 191.05	$\frac{5.1}{20}$ 189.45	5.5 189.05	$\frac{6.4}{20}$ 188.15	$\frac{6.1}{36}$ 188.45	$\frac{5.1}{40}$ 189.45	$\frac{4.9}{50}$ 189.65
						194.55				
5+64.36			$\frac{0.5}{50}$ 190.80	$\frac{2.5}{40}$ 188.80	$\frac{3.9}{20}$ 187.40	4.2 187.10	$\frac{5.2}{20}$ 186.10	$\frac{5.6}{28}$ 185.70	$\frac{4.6}{36}$ 186.70	$\frac{2.8}{40}$ 188.50 · $\frac{3.3}{50}$ 188.0
5+30	$\frac{1.4}{55}$ 189.90	$\frac{1.8}{47}$ 189.50	$\frac{3.6}{40}$ 187.70	$\frac{5.3}{38}$ 186.00	$\frac{6.5}{20}$ 184.80	6.6 184.70	$\frac{7.0}{20}$ 184.30	$\frac{6.6}{37}$ 184.70	$\frac{5.8}{40}$ 185.50	$\frac{5.3}{50}$ 186.00
5+00	$\frac{4.5}{50}$ 186.80		$\frac{5.7}{40}$ 185.60	$\frac{7.2}{36}$ 184.10	$\frac{8.4}{20}$ 182.90	8.8 182.50	$\frac{9.4}{20}$ 181.90	$\frac{9.1}{36}$ 182.20	$\frac{8.4}{40}$ 182.90	$\frac{8.7}{50}$ 182.60

191.30

San J.

	Lt.			℄		Rt.			
c.t. + ℄ Churchward B.M. on Int. of tangent 5.10 189.45 ✓									
6+67	191.80 2.75 = Top. 41.5 = end of cb. N.E. Ret. = N.L. Churchward	3.48 = gut. 41.5	4.72 20	89.03 5.52 on conc. pave					
6+56 · ℄ + N. edge of Conc. pave on Churchward	193.25 1.3 50	192.85 1.7 40	190.55 4.0 32	189.95 4.6 20	188.77 5.78		188.18 6.37 15		
6+42	193.25 1.3 50	192.45 2.1 40	191.35 3.2 38	189.95 4.6	189.65 4.9	188.45 6.1 20	186.85 7.7 40	186.30 8.25 48.4 gut.	186.66 7.89 48.4 Top. = end of cb. N.W. Ret. N.L. Churchward

194.55

F.O. 5-4-46

indexed C.S.K.

X-Sect. Santa Margarita St. 60'
San Jacinto Dr. - East to 55th

Plotted am

Station	Lt. 40	Lt. 30	Lt. 20	℄	Rt. 20	Rt. 24	Rt. 30	Rt. 40
1+00	10.0 / 180.01	9.5 / 180.51	9.3 / 180.71	8.7 / 181.31	8.1 / 181.91	7.5 / 182.51	3.6 / 186.41	2.8 / 187.21
0+75	10.9 / 179.11	9.7 / 180.31	9.4 / 180.61	8.4 / 181.61	7.6 / 182.41	6.9 / 183.11	3.3 / 186.71	2.1 / 187.91
0+50	11.2 / 178.81	10.5 / 179.51	9.6 / 180.41	8.7 / 181.31	7.9 / 182.11	7.1 / 182.91	3.0 / 187.01	1.9 / 188.11
0+25	12.0 / 178.01	11.0 / 179.01	10.1 / 179.91	9.2 / 180.81	8.5 / 181.51	8.0 (23) / 182.01	4.2 / 185.81	2.8 / 187.21
0+00 = B.C.	12.7 / 177.31	12.2 / 177.81	11.8 / 178.21	10.6 / 179.41	9.8 / 180.21	9.3 / 180.71	5.1 / 184.91	3.3 / 186.71

See sketch P. 1
opp. prop. P.C. on Lt. + Rt.

B.M. 11.05 190.01 178.96 P.I. Hub P. 13

190.01

2+61.46 = P.C.C.				
2+30				
T.P.	1.60	178.83	12.78	177.23
2+00				
1+75				
1+50				
1+25				

Lt. | ℄ | Rt.

Lt.	℄	Rt.
173.13	170.43	171.63
5.7 40	8.4 20	7.2 40
172.03	169.63	170.43
6.8 30	8.9 20	8.4 27
171.03	172.73	171.78
7.8 26	6.1 20	7.1 30
175.73	173.23	175.23
3.1 30	5.6 20	3.6 40
173.93	173.53	174.93
4.9 26	5.3 20	3.9 27
178.83		
177.81	175.61	176.21
12.2 40	14.4 20	10.8 40
177.81	176.01	177.01
12.2 30	14.0 26	13.0 26
176.01	174.61	178.61
14.0 26	14.4 20	11.4 30
178.21	177.51	181.11
11.3 40	12.5 20	8.9 40
179.11	177.71	180.11
10.9 30	12.3 25	9.9 30
179.91	179.61	181.21
10.1 30	10.4 20	8.7 26
179.61	179.51	181.31
10.6 40	10.5	6.9 30
180.21	180.01	181.81
9.8 30	10.0 20	8.4 25
179.61	180.51	184.51
10.4 40	9.5	5.5 30
	190.01	185.51
		4.5 40

Station					
4+25					
4+00					
3+83.38 = 7+19.32	intersect ℄ 53rd st.				
3+75					
3+50					
T.P.	1.08	166.81	13.10	165.73	
3+25					
3+00					
2+75					

Lt. — Rt.

Station					℄			
4+25		157.61 9.2/30		157.91 8.9/20	158.31 8.5	159.81 7.0/20	160.51 6.3/30	161.21 5.6/40
4+00		157.51 9.3/30		157.81 9.0/20	158.91 7.9	160.21 6.6/20	160.61 6.2/30	161.21 5.6/40
3+75	159.21 7.6/60	159.41 7.4/40	159.91 6.9/30	160.01 6.8/20	159.81 7.0	160.31 6.5/20	161.51 5.3/30	162.31 4.5/40
3+50	162.51 4.3/50	162.51 4.3/40	162.21 4.6/30	162.51 4.3/20	162.01 4.8	162.51 4.3/20	163.21 3.6/30	164.61 2.2/40
T.P.					166.81			
3+25	166.03 12.8/40	165.83 13.0/30	164.43 14.4/27	164.23 14.6/20	163.93 14.9	164.53 14.3/20	165.63 13.2/30	166.23 12.6/40
3+00	168.33 10.5/40	168.93 9.9/30	167.23 11.6/24	166.63 12.2/20	166.23 12.2	166.53 12.3/20	167.03 11.8/30	167.73 11.1/40
2+75	171.73 7.1/40	171.23 7.6/30	169.73 9.1/26	169.43 9.4/20	168.93 9.9	168.63 10.2/20	170.33 8.5/30	171.03 7.8/40

178.83

Station	Notes	Lt.				Rt.	
5+75		158.81 / 8.0 / 25	159.01 / 7.8 / 15	159.71 / 7.1	159.91 / 6.9 / 15	160.41 / 6.4 / 25	
5+50		158.81 / 8.0 / 25	159.11 / 7.7 / 15	159.71 / 7.1	159.91 / 6.9 / 15	160.51 / 6.3 / 25	
5+25		158.71 / 8.1 / 25	159.11 / 7.7 / 15	159.61 / 7.2	159.91 / 6.9 / 15	160.81 / 6.0 / 25	
5+00	= Base is ℄ of 50' st.	158.71 / 8.1 / 25	159.01 / 7.8 / 15	159.41 / 7.4	159.91 / 6.9 / 15	160.41 / 6.4 / 25	
4+71.08	= E.C. There is .44 of tangent then ℄ is 5' S. for ℄ of 50' St. B.C. = 4+71.52 (use same rods.)	158.11 / 8.7 / 30	158.31 / 8.5 / 20	158.71 / 8.1	160.11 / 6.7 / 20	160.41 / 6.4 / 30	160.91 / 5.9 / 40
4+50		157.71 / 9.1 / 30	158.01 / 8.8 / 20	158.51 / 8.3	159.91 / 6.9 / 20	160.51 / 6.3 / 30	160.91 / 5.9 / 40

166.81

8+68 - 16 Rt. = ℄ P. pole

8+50

8+24 - 17.6 Lt. = beg. Heavy wire fence

8+00

7+50

7+00

6+50

7.67 166.36

Pipe 25' N.

B.M. sta. 6+01.96 = E.C. 8.12 158.69

6+01.96 = E.C.

F.O. 5-7-46

Santa M.

20

	Lt			℄		Rt
	161.04			161.56		162.16
	5.3 / 25			4.8		4.2 / 25
160.66	160.76		161.16	161.56	161.66	161.56
5.7 / 25	5.6 / 25		5.2	5.2 / 25	5.2 / 25	4.8 / 25
160.06	160.16		160.56	160.96	161.06	160.96
6.3 / 25	6.2 / 25		5.8	5.8 / 15	5.8 / 15	5.4 / 25
159.66	159.76		160.06	160.46	160.56	160.86
7.7 / 25	6.6 / 15		6.3	5.9 / 15	5.9 / 15	5.5 / 25
159.06	159.36		159.66	159.96	160.06	160.36
7.3 / 25	7.0 / 15		6.7	6.4 / 15	6.4 / 15	6.0 / 25
			166.36			
158.51	158.91		158.61	160.01	160.11	160.31
8.3 / 25	7.9 / 15		7.2	6.8 / 15	6.8 / 15	6.5 / 25
			166.81			

Station	Notes				
11+31.84 = ℄ 54th					
11+16.84 = W. side of 30' strip of Conc. pave					
11+16 - 22' Rt. = N. side of 6' wide hedge - 7' high					
11+01.84 = W.L. 54th St. to N.	16.7 Rt. = ℄ P. pole				
I.P.		6.60	170.46	2.50	163.86
10+50					
10+00					
9+50					
9+03 - 17' Lt. = End of wire fence					
9+00					

Station		Lt.		℄		Rt.
11+31.84	162.28 / 8.18 / 75 on pave	162.80 / 7.66 / 24.3 = edge of Conc.	162.96 / 7.5 / 15	163.87 / 6.59 on rim of M.H.	164.26 / 6.2 / 15	164.26 / 6.2 / 25
11+16.84	162.02 / 8.44 / 75 on edge of pave	162.64 / 7.82 / 24.3 SW. Cor. Conc. pave	163.06 / 7.4 / 15	163.56 / 6.9	164.16 / 6.3 / 15	164.36 / 6.1 / 25
11+01.84		163.16 / 7.3 / 25	163.06 / 7.4 / 15	163.46 / 7.0	164.36 / 6.1 / 15	164.66 / 5.8 / 25
I.P.				170.46		
10+50		163.36 / 3.0 / 25	163.56 / 2.8 / 15	163.86 / 2.5	164.36 / 2.0 / 15	164.66 / 1.7 / 25
10+00		162.66 / 3.7 / 25	163.36 / 3.0 / 15	163.46 / 2.9	163.76 / 2.6 / 15	164.26 / 2.1 / 25
9+50		162.16 / 4.2 / 25	162.56 / 3.8 / 15	162.56 / 3.8	163.16 / 3.2 / 15	162.56 / 3.8 / 25
9+00		161.46 / 4.9 / 25	161.56 / 4.8 / 15	161.76 / 4.6	162.36 / 4.0 / 15	162.76 / 3.6 / 25
				166.36		

	Lt.	℄	Rt.
13+50	164.96 5.5 25	164.96 5.5 15	165.36 5.1 9	165.46 5.0 15	165.66 4.8 15	166.36 4.1 25
13+00	164.64 5.8 25	164.96 5.5 15	165.36 5.1 15	165.66 4.8 15	166.86 3.6 25	
12+61 – 17.2 Rt. = ℄ P. pole						
12+50	164.56 5.9 25	164.66 4.8 15	164.96 5.1 15	165.06 5.4 15	165.86 4.6 15	166.46 4.0 25
12+00	164.06 6.4 25	163.86 6.6 15	164.36 6.1 15	165.06 5.4 15	165.86 4.6 25	
11+61.84 End of sheet	163.46 7.0 25	163.66 6.8 15	163.76 6.7 15	164.36 6.1 15	164.96 5.5 25	
11+54 – 23' Rt. = end of hedge	162.85 8.41 75 on edge of pave	162.62 7.84 24.7 = S.E. cor. Conc. pave	162.96 7.5 15	163.76 6.7 15	164.66 5.8 15	164.56 5.9 25
11+46.84 = E. Side 30' Conc. strip						

170.46

Sta.	B.S.	H.I.	F.S.	Elev.	Lt. 25	Lt. 15	℄	Rt. 10/8	Rt. 15	Rt. 25
16+50					7.2 / 25 / 167.38	6.9 / 15 / 167.68	6.9 / 167.68	6.9 / 10 / 167.68	6.5 / 15 / 168.08	6.1 / 25 / 168.48
16+00					7.8 / 25 / 166.78	7.7 / 15 / 166.88	7.3 / 167.28	7.3 / 8 / 167.28	6.5 / 15 / 168.08	6.0 / 25 / 168.58
T.P.	7.56	174.58	3.44	167.02			174.58			
15+50					4.0 / 25 / 166.96	3.9 / 15 / 166.56	3.5 / 166.96	3.7 / 9 / 166.76	3.8 / 15 / 166.66	2.4 / 25 / 168.06
15+11 -	17' Lt. =	beg. Slat	fence -	5' high - new.						
15+00					4.4 / 25 / 166.06	4.3 / 15 / 166.16	4.0 / 166.46	4.1 / 10 / 166.36	3.6 / 15 / 166.86	3.0 / 25 / 167.46
14+78 -	27.9 Lt. = ℄ end of 4' Conc. walk				4.72 / 27.9 on conc. / 165.74					
14+50					4.9 / 25 / 165.56	4.9 / 15 / 165.56	4.5 / 165.96	4.6 / 8 / 165.86	3.7 / 15 / 166.76	3.4 / 25 / 167.06
14+32 -	17' Rt. = ℄ P. pole									
14+00					5.5 / 25 / 164.96	5.4 / 15 / 165.06	4.9 / 165.56	4.6 / 15 / 165.86	4.1 / 25 / 166.36	

170.46

L+T = ℄ Imp. & 53¹/₃

					B-1664-P45
B.M.	3.08	159.89	4.90	154.99	154.98
	1.10	164.97	8.16	156.81	
	1.70	170.94	7.07	163.87	
B.M. 16+73 Spike in Pole - S. side.			5.34	169.24	

50' W. of 55th & Santa Margarita

Section on angle - E.L. of Sub.

17+58.77 = ℄ Santa Margarita & E.L. of Las Alturas #2 = ℄ 55th if 50' wide

17+51.67 = Prop. Cor. on Rt.

17+39.88 = Prop. Cor. on Lt. on W. Line 55th 25 w.

17+00

16+73 - 17' Rt. = ℄ P. pole

Lt.		℄		Rt.
168.48	168.78	169.18	169.28	170.08
6.1	5.8	5.4	5.3	4.5
N.L. = 25.99	15		15	25.99 = S.L.
168.28	168.68	169.08	169.28	170.08
6.3	5.9	5.5	5.3	4.5
25	15		15	25
168.78	168.48	168.98	169.08	169.78
5.8	6.1	5.6	5.5	4.8
25	15		15	25
168.18	167.88	168.28	168.68	169.58
6.4	6.7	6.3	5.9	5.0
25	15		15	25

174.58

X-Sect. 53rd St. 50' wide from S.L. Groveland to Santa Margarita St.

Osborne 5-8-46

indexed C.S.K.

53rd 25

2+00		Plotted			
1+50					
1+00					
0+76	16.6 Lt. = ℄ P. pole				
0+50					
0+00 = S.L. Groveland to W.					
B.M.	2.16	157.15		154.99	c.t. & Imp +53rd - P24

	Lt.	℄	Rt.
2+00	152.05	152.15	152.25
	4.5	5.0	4.9
	25	15	
1+50	151.75	151.75	151.75
	5.0	5.4	5.4
	25	15	
1+00	151.55	150.75	150.55
	5.6	6.4	6.6
	25	15	
0+76	149.75	149.15	149.15
	7.4	8.0	8.0
	25	15	
0+50	147.85	147.05	147.45
	9.2	10.1	9.7
	25	15	

157.15

	Rt.				
2+00	152.05	152.35	152.55	151.35	151.25
	5.1	4.8	4.6	5.9	5.0
	12	15	17	22	25
				± ditch	
1+50	151.75	152.15	152.55	151.95	151.25
	5.4	5.0	4.6	6.2	4.9
	12	15	17	21	25
				± ditch	
1+00	150.95	150.95	151.35	150.55	150.05
	6.2	6.2	5.8	7.0	6.1
	13	15	18	22	25
				± Drain ditch	
0+76	149.35	149.35	149.45	148.85	
	7.8	7.8	8.7	8.3	
	18	18	23	25	
0+50	147.25	147.25			
	10.1	9.9			
	15	25			

3+46 - 26.7 - Rt. = Outlet of 18" R.C. Culvert at right angle to ℄ 53rd

3+43 = N. edge oil pave - Section on diagonal normal to Imperial

3+18.8 - 9.2 Rt. = center of 3.6 x 3.6 Gas + Elect. Co. M.H.

3+11 = opp. N.L. Imperial to East - Prop. Cor.

2+95 - 17' - Lt. = ℄ P. pole

2+84.80 = opp. Prop. P.C. on Rt.

2+50

2+08 - 17 - Lt. = ℄ P. pole

53rd

Lt.		℄		Rt.	
154.55		154.65		154.75	5.31 26.7 = F.L. Pipe
2.6		2.5		2.4	
25		15		25.98 = W.L. 53rd	
E.L. 53					
154.55		154.65		154.55	
2.6		2.5		2.6	
25.98		15		15	
154.05	153.95	153.55	153.75	153.95	153.95 9.2
3.1	3.2	3.6	3.4	3.2	3.2
25	15	12		15	21
					152.65
					4.5
					25
					= ℄ ditch
					153.85
					3.3
					29

3.25 = on rim.

153.55	153.15	153.45	152.95	153.25	153.15	152.05	153.35	
3.6	4.0	3.7	4.2	3.9	4.0	5.1	3.8	
25	15		10	15	21	25	29	℄ ditch
152.55	152.75	152.85	152.75	152.85	152.85	151.65	151.85	152.45
4.6	4.4	4.3	4.7	4.3	4.3	5.5	5.3	4.3
25	15		11	15	20	24	25	28
								℄ ditch

157.15

Station / Note	Lt.			℄			Rt.	
4+45.40 = opp. Prop. P.C. on Rt.	157.01 / 5.9 / 25	154.71 / 6.2 / 15	154.71 / 6.2	154.21 / 6.7 / 6	154.91 / 6.0 / 8	154.21 / 6.7 / 15 = ℄ ditch	154.51 / 6.4 / 25	
4+14 - 17.5 Lt. = ℄ Guy pole								
3+94.12 = opp. prop. cor. on Lt.	154.61 / 6.3 / 25	154.51 / 6.4 / 15	154.21 / 6.7	154.11 / 6.8 / 5	155.01 / 5.9 / 13	153.61 / 7.3 / 17 = ℄ ditch	155.01 / 5.9 / 21	155.11 / 5.8 / 25
3+84.4 - 17' Rt. = Inlet of 18" R.C. Culvert					152.58 / 8.33 - on F.L. / 17			
3+75 = S. edge of oil pave - Sect. normal to Imperial	154.71 / 6.2 / 25.98 = E.L.	154.71 / 6.2 / 15	154.91 / 6.0	154.81 / 6.1 / 15		154.81 / 6.1 / 25.98 = W.L.		
3+69.2 = S. side of 18' Conc. strip pave	154.88 / 6.03 / 75	154.78 / 6.13 / 50	154.85 / 6.06 / 25.98 = E.L.	154.88 / 6.03 / 15	154.92 / 5.99	154.94 / 5.97 / 15	154.99 / 5.92 / 25.98 = W.L.	154.97 / 5.84 / 75
T.P. 5.92 160.91 2.16 154.99				160.91				
Rods on edge of pave 3+50.40 = ℄ 53rd + N.L. of 18' strip Conc. Pave Sect. Normal to Imperial	154.81 / 2.34 / 75	154.76 / 2.39 / 50	154.84 / 2.31 / 25.98 = E.L.	154.85 / 2.30 / 15	154.87 / 2.28	154.87 / 2.28 / 15	154.87 / 2.28 / 25.98 = W.L.	155.06 / 2.09 / 75

157.15

Station	Lt.		℄			Rt.		
5+85	5.3 / 25 — 155.61	5.5 / 15 — 155.41	5.9 — 155.01	6.1 / 3 — 154.81	5.5 / 4 — 155.41	3.5 / 15 — 157.41	3.0 / 25 — 157.91	1.9 / 35 — 159.01
5+58	5.6 / 25 — 155.31	5.6 / 15 — 155.31	6.1 — 154.81	6.3 / 5 — 154.61	5.7 / 6 — 155.21	5.1 / 15 — 155.81	4.7 / 25 — 156.21	3.7 / 35 — 157.21
5+29 = ℄ Single garage on Lt. - Conc. floor; on floor 4.98 / 30.4 — 155.93	5.5 / 25 — 155.41	5.8 / 15 — 155.11	6.1 — 154.81	6.4 / 6 — 154.51	5.9 / 7 — 155.01	5.5 / 15 — 155.41	5.3 / 25 — 155.61	4.2 / 35 — 156.71
5+00	5.8 / 25 — 155.11	6.1 / 15 — 154.81	6.3 — 154.61	6.6 / 5 — 154.31	6.1 / 7 — 154.81	6.2 / 15 — 154.71	6.3 / 25 — 154.61	5.9 / 35 — 155.01
4+75	6.0 / 25 — 154.91	6.1 / 15 — 154.81	6.4 — 154.51		6.5 / 15 — 154.41	6.6 / 25 — 154.31		

160.91

7+19.32 =
3+83.38 Santa Mar.

Check B.M. on pipe-P.20 2.23 158.68 ✓ 158.69-P.20

30' from Sect. ℄

6+88.8 = Approx. int. of ℄ + N.L. of Santa Margarita on curve

Lt.						℄			Rt.	
157.11	157.41	157.41	156.81	157.41	157.41	158.01	160.31	160.91	158.21	157.41
3.8 / 65	3.5 / 55	3.5 / 40	4.1 / 35	3.5 / 25	3.5 / 15	2.9	0.6 / 15	0.0 / 25	+ 2.7 / 50	+ 3.5 / 60

approx. E.L on curve — Approx. W.L. on Curve

6+49 = Approx. opp. Prop. P.C. on Rt.

156.61	156.61	156.41	156.61	156.11	159.31	160.41	160.21
4.3 / 40	4.3 / 30	4.5 / 15	4.3 / 12	4.8	1.6 / 15	0.5 / 25	+ 0.7 / 35

6+06.64 = opp. Prop. P.C. on Lt.

155.91	155.61	155.11	158.01	159.41	160.91
5.0 / 25	5.3 / 15	5.8	2.9 / 15	1.5 / 25	0.0 / 35

160.91

Curb + Gutter Levels on Churchward St. - paved - Conc. + walks in. 40' Rdw. + 10' cbs. 5' walks in Center of 10' strip - cb. to prop. Base Line = ℄ Churchward - Refer to Blue Prints of Const. plans

Plotted am

F.O. 5-9-46

indexed

e-S.K.

Church

Station		Lt.		℄		Rt.
2+00		4.31 / 20 / 187.37	4.84 / 20 / 186.84	4.55 / 187.13	5.01 / 20 / 186.67	4.44 / 20 / 187.24
1+00 – Note: Gutter + top of curb taken in same order - unless noted will leave out words - Top + gut.		5.01 / 20 / Top / 186.67	5.51 / 20 / gut / 186.17	5.18 / 186.50	5.73 / 185.95	5.06 / 186.62
0+74.3 = opp. P.C. of 10' Rad Ret. on N.		5.19 / 20 / Top cb. / 186.49	5.81 / 20 / gut / 185.87	5.28 / 186.40	5.79 / 20 / gut / 185.89	5.16 / 20 / Top / 186.52
0+64.3 = E. cb. line of Euclid to N.	5.21 / 30 / Top cb. / 186.47	5.97 / 30 / gut / end of ret. on N.L. church / 185.71	5.79 / 20 = N.cb.line / 185.89	5.34 / 186.34	5.75 / gut / 185.93	5.19 / Top cb. / 186.49
0+00 = ct. = ℄ Euclid to S. + ℄ Churchward						

B.M. 6.82 191.68 184.86

BP in S. cb. Imp. + Churchward.

191.68

						Lt.		℄	Rt.	
4+80 = opp. end of cb. at N.L. on Lt.					185.38 2.32 30 Top	184.66 3.04 30 gut.	184.81 2.89 20	185.11 2.59	184.73 2.97 20	185.33 2.37 20
5+00.73 = ct. on ℄ Tangent of Santa Margarita prod.										
4+35					186.50 1.20 22.3 = Top.	185.80 1.90 22.3 = gut.	185.77 1.93 20	186.09 1.61	185.69 2.01 20	186.37 1.33 20
I.P.	1.68	187.70	5.66	186.02				187.70		
3+91.56 = opp. Prop. P.C. on Lt.						186.99 4.69 20	186.38 5.30 20	186.76 4.92	186.36 5.32 20	187.00 4.68 20
3+50						187.56 4.12 20	187.00 4.68 20	187.23 4.45	186.90 4.78 20	187.47 4.21 20
3+00						187.82 3.86 20	187.30 4.38 20	187.55 4.13	187.15 4.53 20	187.80 3.88 20
2+50						187.65 4.03 20	187.15 4.53 20	187.43 4.25	187.01 4.67 20	187.58 4.10 20

191.68

6+64 = P.C. Ret. on Rt.

6+54 - Note 10' Rad. Ret. Has 90° Δ

6+24

5+94 = Opp. end of Ret.

5+84 = Opp. P.C. 10' Rad. Ret. on Rt.

5+40

	Lt.			Rt.		
	179.96	180.15	180.40	179.72	180.38	
	7.74	7.55	7.30	7.98	7.38	
	edge = 30	20		20 qut.	20 Top	
	180.66	180.84	181.09	180.20	180.73	179.79 / 181.24
	7.04	6.86	6.66	7.00	6.97	7.91 / 7.43
	30 = edge	20		20	30 - edge of Pave.	30 / 30 Top end Ret.
			181.85	181.55	181.70	182.33
			5.85	6.15	6.00	5.37
	181.75	181.96	182.16	181.89	182.43	30 / 30 Top end of Ret.
	5.95	5.74	5.54	5.81	5.27	
	30 edge	20		20	20	
	183.07	183.07	183.41	183.15	183.70	
	4.66	4.63	4.29	4.55	4.00	
	30 N. edge of pave	20		20	20	

187.70

9+00

T.P.	12.50	193.20	7.00	180.70

8+50

7+87 = Break in grade in curbs

7+64 = ℄ of 15' opening cb. inlets - 2.2' x 4' grates
Both sides - 18" Cor. Iron pipe
culvert inlet to S. is Covered up. - See plan
FL of outlet

7+18.4 = P.C. of cb. ret. on Lt.

6+94 = opp. end of curb on Lt. Note - cb. does not go to N.L. as shown on plan

	Lt.				℄		Rt.	
9+00		182.11 / 11.09 / 20	181.68 / 11.52 / 20		182.10 / 11.10	181.53 / 11.67 / 20	182.14 / 11.06 / 20	
8+50		180.77 / 6.93 / 20	180.22 / 7.48 / 20		193.20; 180.74 / 6.96	180.14 / 7.56 / 20	180.66 / 7.04 / 20	
7+87		179.35 / 8.35 / 20	178.84 / 8.86 / 20		179.57 / 8.13	179.17 / 8.53 / 20	179.80 / 7.90 / 20	
7+64	171.53 / 16.17 / 43 (FL of outlet); 179.76 / 7.94 / 20 Top cb	178.74 / 8.96 / 20 Top grate	172.76 / 14.94 / 20 = FL. of Box		179.46 / 8.24	175.14 / 12.56 / 20 = FL. of Box	178.85 / 8.95 / 20 Top of grate	179.77 / 7.93 / 20 Top
7+18.4	179.54 / 8.16 / 20 Top	179.06 / 8.64 / 20 gut.						
6+94	179.82 / 7.88 / 27.8 Top end of cb	179.32 / 8.38 / 27.8 gut.	179.32 / 8.38 / 20		179.80 / 7.90	179.26 / 8.44 / 20	179.87 / 7.83 / 20	

187.70

11+12 = End of Ret. on Lt.

10+84 = int. of S.L. & face of cb. on Ret.

Note: San Jacinto is paved - Conc. to S. - cbs. & walks in

10+51.7 = P.C. Large Rad. ret. on Rt.

T.P.	9.77	199.21	3.76	189.44	c.t. & San Jacinto P.15

10+20 - opp. end of cb. on Ret. on Lt.

9+93 = opp. P.C. of Ret. on Lt.

9+85.25 = c.t. - see sketch

9+50

Lt.

191.79	191.05	190.61	190.01	190.79
7.42	8.16	8.60	8.20	8.42
27.7 Top	27.7 gut			20
189.58	189.49	189.45	189.70	
9.63	9.72	9.36	9.51	
edge of Pave 27.7	20		20	
187.95	188.08	188.33	188.27	
11.26	11.13	10.88	10.94	
edge of Pave 27.7	20		20	
186.66	186.28	182.53	186.60	
also edge of Pave 6.54	6.92	6.67	6.60	
27.6 end Ret.	27.6 Top cb.	20 gut	20	
185.92	185.28	185.68	185.34	
7.28	7.92	7.52	7.86	
20	20		20	
183.64	183.48	183.86	183.34	
9.11	9.72	9.34	9.86	
20	20		20	

Rt.

190.99			
8.22			
30			
190.67			
8.57			
30 Top			
188.85			
10.36			
20			
187.16			
6.04			
20			
185.49			
7.31			
20			
183.69			
9.20			
20			

199.21

193.20

					Lt.		℄	Rt	
					201.96	201.35	201.25	201.37	201.90
13+50					9.94	10.55	10.15	10.56	10.00
					20	20		20	20
					199.67	199.05	199.56	199.16	199.76
13+00					12.23	12.85	12.34	12.74	12.14
					20	20		20	20
T.P.	13.34	211.90	0.65	198.56			211.90		
					197.17	196.55	197.13	196.70	197.34
12+50					2.04	2.66	2.08	2.51	1.87
					20	20		20	20
					193.53	193.38	193.76	193.93	193.99
11+76.6	= P.C. Ret. on Rt.				5.38	5.89	5.45	5.78	5.22
					20	20		20	20
					193.15	192.50	193.91	192.59	192.80	192.86
11+57.7	= int. of S.L. & face of cb. on ret.				cb. grade prod. 6.06	6.71	6.30	6.62	6.89	6.35
					20	20 = in drive		20	30	30 Top
						out			out	
					191.10	191.43	191.76	191.46		191.67
11+30	= P.C. Ret. on Lt.				7.11	7.78	7.45	7.75		7.54
					20	20		20		30
							199.21			

					Lt.			Rt.	
I.P.	12+47	223.58	0.79	211.11					
					210.41	209.68	210.02	209.70	210.28
16+00					S. side walk in drive 1.49 22.5	2.22 20 gut. in drive	1.88	2.20 20	1.62 20
					208.70	208.04	208.39	208.01	208.67
15+50					3.20 20	3.86 20	3.51	3.89 20	3.23 20
					207.04	206.38	206.84	206.46	206.94
15+00					4.86 20	5.52 20	5.06	5.46 20	4.96 20
					205.63	205.01	205.17	204.69	205.30
14+50					S. side = walk 6.27 22.5	6.89 20 gut. in drive	6.73	7.21 20	6.60 20
					203.78	203.18	203.52	203 out	203.48
14+00					8.12 20	8.72 20	8.38	8.90 20	8.22 20

211.90

Church

Note: Manzanares Way is paved - Conc. and to S.
cbs. & Walks in

19+39.4 = int. of S.L. & face of cb. on Rt.

19+19 = P.C. Ret. on Rt.

18+90

18+50

18+00

17+00

	Lt.	℄	Rt.		
	220.77	220.41	220.18	220.08	220.40
	2.81 20	3.17	3.40 20	3.50 30 = gut.	3.18 30 Top
	220.93	220.18	219.98	220.54	
	3.15 20	3.40	3.68 20	3.04 20	
	219.92	219.63	219.22	219.85	
	3.66 20	3.95	4.36 20	3.73 20	
	218.60	218.42	218.06	218.68	
	4.98 20	5.16	5.52 20	4.90 20	
	216.89	216.76	216.34	216.94	
	6.69 20	6.82	7.22 20	6.64 20	
	213.47	213.35	212.97	213.59	
	10.10 20	10.23	10.61 20	9.99 20	

223.58

23+00				
22+00				
21+00				
20+51.3 =	P.C. of Ret. on Rt.			
I.P.	7.08	229.25	1.41	222.17
20+10 =	int. Sl. + E. cb. on Ret.			
19+73.5				

	Lt.		#		Rt.	
23+00	224.01		223.99		223.61	224.16
	5.24 20	5.75 20	5.26	5.64 20		5.09 20
	223.28	223.59	223.05	223.61		223.37
22+00	5.97 20	6.58 20	6.20	6.44 20		5.88 20
	222.41	222.67	222.29	222.01		222.63
21+00	6.84 20	7.48 20	6.96	7.24 20		6.62 20
	222.18	221.77	221.91	221.60		222.23
20+51.3 = P.C. of Ret. on Rt.	7.17 20	7.65 20	7.34	7.63 20		7.02 20
I.P.	221.81	221.38	229.25	221.00		221.07
	1.77 20	2.20 20	1.18	2.58 20		2.54 30 Opt. 1.88 30 Top
20+10 = int. Sl. + E. cb. on Ret.	221.38	220.73	220.99	220.62		220.78
	2.20 20	2.85 20	2.59	2.96 20		2.80 30
19+73.5			223.58			

T.P.	7.95	246.08	2.48	238.13
25+00				
24+50				
T.P.	12.54	240.61	1.18	228.07
24+25				
23+87.2	= opp. face of N. & S. cb. of ret. on Lt.			
23+67				
23+44.5	= opp. W.L. of Alley & N.L. Churchward			

Lt. | ℄ | Rt.

	Lt.	℄	Rt.
	231.11	231.15	230.90
25+00	9.50 / 20	9.46	9.71 / 20
	227.63	227.68	227.24
24+50	12.98 / 20	12.93	13.37 / 20
T.P.		240.61	
	226.23	226.23	226.15
24+25	3.02 / 20	3.02	3.10 / 20
	225.14	224.98	224.72
23+87.2	= Top of cb. 2' Rad. Alley ret. opp. 4.11	4.27	4.53 / 20
		224.61	
		19.6 = edge of pave + gut. 4.64	
	224.71	224.65	224.26
23+67		5.04 / 19.6 = edge of Pave	4.99 / 20
	224.61	224.36	223.97
23+44.5	4.84 / 20 Top	5.44 / 20 gut.	5.28 / 20
		229.25	

	℄
	231.41
25+00	9.20 / 20
	227.81
24+50	12.80 / 20
	226.72
24+25	2.53 / 20
	225.18
23+87.2	4.07 / 20
	224.75
23+67	4.50 / 20
	224.55
23+44.5	4.70 / 20

Check BM.	ct. & San Jacinto		12.53	189.47	189.45
	0.13	202.00	11.88	201.87	
	0.42	213.75	12.16	213.33	
T.P.	2.10	225.49	10.05	223.39	
	℄ Alley - prod.				
B.M. on Ct.	Sta. 23+54.91		8.89	224.55	
T.P.	0.03	233.44	12.67	233.41	
B.M. on Rock for check on Alley + Dream Levels			4.40	241.68	

26+39.49 = E.L. Las Alturas # 2 = C.t. in ℄

Note: Sidewalk on N. side ends 2.1' E. of Sub. Line

26+00

25+50

Church -

	Lt.	℄	Rt.
	243.99	243.28	243.87
	2.09	2.80	2.41
	20	20	20
	240.33	239.53	240.10
	5.75	6.55	5.98
	20	20	20
	235.66	235.08	235.40
	10.42	11.00	10.68
	20	20	20

	243.73	244.30	
	2.35	1.78	
	20	20	
	239.90	240.58	
	6.18	5.50	
	20	20	
	235.11	235.73	
	10.97	10.35	
	20	20	

246.08

X-Sect. of 20' Alley - from Churchward to 200' N. Between Lot L & Lot I in Las Alturas No. 2. - See sketch P. 5

F.O. 5-11-46

indexed O.S.R.

	Lt.		℄	Rt.
	224.50	226.40	226.40	227.20
0+30	8.5 / 15	10.2 / 10	10.2	9.8 / 10 — 10.0 / 15
	225.20	225.30	225.10	224.80
0+12.8 = opp. int. E.L. of Alley & N.L. Dream st.	11.8 / 15	11.7 / 10	11.9	12.2 / 10
	224.82	224.50	224.30	224.40
0+00 = N.L. Churchward	12.18	12.5	12.7	12.6 / 10
Note: Alley Ret. on Lt. is 1.5' in Alley	8.5 Top of end ret.	8.5 out		
	223.84		224.07	
0-10.4 = N. edge of Conc. Pave on Churchward.	13.16 / 10 out		13.00	12.78 / 10
	224.46			224.42
	12.54 / 10 Top cb. P.C. 2' Rad. Alley ref.			

B.M. 12.45 237.00 224.55 23+54.91 ct.

237.00

						Lt.			℄	Rt.	
1+53 – 10' Lt. = S. edge of Conc. Driveway					3.54 / 10 = on conc. — 244.94						
1+50						3.3 / 15 — 245.18	3.8 / 10 — 244.68		4.2 — 244.28	4.2 / 10 — 244.28	4.2 / 15 — 244.28
1+29 = ℄ 6' Cobble stone Steps on Lt. 12' to edge of bottom step.					Top of bot. step	4.55 / 12 — 243.93					
1+25						4.1 / 15 — 244.38	4.9 / 10 — 243.58	5.5 / 9 — 242.98	6.0 — 242.48	6.0 / 10 — 242.48	5.8 / 15 — 242.68
1+00					5.8 / 20 — 242.68	6.2 / 12 — 242.28	6.5 / 10 — 241.98	8.5 / 8 — 239.98	8.9 — 239.58	8.7 / 10 — 239.78	8.9 / 15 — 239.58
T.P.	12.84	248.48	1.36	235.64					248.48		
0+50					3.9 / 20 — 233.10	3.5 / 13 — 233.5	4.6 / 10 — 232.40	6.8 / 8 — 230.2	6.6 — 230.40	6.5 / 10 — 230.5	6.5 / 15 — 230.5
									237.00		

check B.M. on Rock	6.79	241.69	241.68
B.M. on ± Hub 2+00	3.69	244.79	

2+00 = End. of Alley

1+98 = E. + W. wire fence

1+81 = 12' Rt. + P. pole

1+75

1+67 - 9.2 Lt. = N. edge of Conc. drive

Lt.		℄		Rt.	
245.68		245.68		245.54	
2.8		2.8		2.9	
20		10		10	
			245.24		245.54
			3.4		2.5
			20		20
245.68		245.44		245.14	
2.8		3.0		3.3	
15		10		10	
			245.44		245.54
			3.5		3.4
			10		20
	244.55				
	3.0	on conc.			
	9.2				

248.44

F.O. 5-11-46

indexed C.S.K.

X-Sect. Dream St. 40' wide from N.L. Churchward to E.L. Las Alturas No. 2

See sketch - P. 5

	Lt.			℄			Rt.		
	227.54	224.84	225.14	225.14	221.24	217.15	219.75	224.14	226.24
	7.1	9.8	9.5	9.5	12.8	17.49	14.89	10.5	8.4
	30	20	15	7 = edge Rdwy.		8.7 = F.L. 24" Cor. Iron pipe	8.7 = Top Headwall	20	23
		edge Rdwy							
	227.54	223.04	225.24	225.14	223.34	221.14	226.14		
	7.1	9.6	9.4	9.5	11.3	13.5	8.5		
	30	20	15	7		5	20		
	226.54	224.84	225.04	224.74	225.94	225.61			
	8.1	9.8	9.6	9.9	8.7	9.03			
	30	20	5		10	20 = on walk			
	224.24		224.44	224.94	224.84	225.30	226.24		
	10.4		10.2	9.7	9.8	9.34	8.4		
	30.99 N.L. Dream		15		7.3 ℄	7.3 Top face of straight 10' return with 2' Rad. at cb. line See P. 5	30.99 = S.L. Dream		

234.64

0+75.6 = 8.7 Rt. = ℄ 8'x8" Headwall for inlet of 24" Cor. Iron Culvert. Wall is normal to N.L. of Churchward. Culvert line as shown on plan

Edges of Graded Roadway noted.

0+70.15 - opp. int. of S.L. Dream & N.L. Churchward.

0+60 - for head of Deep wash on right.

0+46.48 = ℄ & N.L. Church - Sect. taken on angle along N.L. of Churchward.

0+00 = ℄ of Dream = Base line & ℄ Churchward

B.M. 10.09 234.64 224.55

Ct. 23+54.91

1+80

1+50

1+25

1+21 - 24.4 Lt. = ℄ P. pole

1+00.4 = Int. of ℄ & ℄ Culvert prod. - see sketch for angle

16" Wood stave pipe

1+00

0+97 - 5.2 Lt. = ℄ Tel. pole

	Lt.			℄	Rt	
	234.83	235.67	228.54	228.94	223.24	222.54
	+0.3	1.0	6.1	5.7	10.4	12.1
	30	20	16 edge rdwy.	= edge Rdwy.	15	20

	Lt.			℄	Rt	
	232.14	230.34	227.24	227.04	218.34	215.84
	2.5	4.3	7.4	7.6	9.3	16.3
	30	20	17 edge rdwy.	15 = edge of Rdwy.	15 = Water Level at edge	20

	Lt.			℄	Rt	
	230.74	229.04	227.44	226.24	226.04	225.94
	3.9	5.6	7.2	8.4	8.6	8.7
	30	21	20	18 edge rdwy.	15	4 = edge Rdwy

	Lt.			℄	Rt	
	223.41			222.95		
	11.23			11.69		
	14.7 = inlet F.L.			5.5 = outlet F.L. Pipe		

	Lt.			℄	Rt	
	224.74	225.44	225.14	225.44	224.94	221.94
	5.9	9.2	9.5	9.2	9.7	12.7
	30	22	20	15 edge Rdwy	6 = edge Rdwy	

234.64

	Lt.			℄	Rt	
	221.84			221.34		
	16.3			16.3		
	27 = water edge			58 = 2.8 deep		

	Lt.			℄	Rt	
	218.34			218.34		
	16.3			16.3		
	38 = water edge			62		

Water about 2.4 Deep.

	Lt.			℄	Rt	
	216.14			218.34		
	18.0			16.3		
	20			38 = water edge		

	Lt.			℄	Rt	
	218.34			218.34		
	16.3			16.8		
	15			= edge of water Level of water		

	Lt.			℄	Rt		
	219.34	219.34	220.14	227.24			
	15.3	15.3	14.5	7.4			
	15	20	28 = W. end of Pond.	38			

3+36.6 - 18.9 Lt. = Begin 7" Conc. curb

3+27 = 19.4 Lt. = end Lath fence

3+25

3+17 - 15' Lt. = ℄ 16" Pepper

3+00

2+91 - 16.5 Lt. = ℄ 14" Pepper

2+70 - 25' Lt. = Begin Lath fence

2+67 - 20' Lt. = ℄ 10" Pepper tree

T.P.	12.43	246.46	0.61	234.03

2+50

2+15

Station	Lt				℄		Rt			
3+36.6		245.82 / 0.64 / 18.9 = Top cb.								
3+25	246.26 / 0.2 / 30	244.66 / 1.8 / 20	243.46 / 3.0 / 15	239.46 / 7.0 / 7 edge Rdwy.	239.36 / 7.1	239.06 / 7.4 / 7 edge Rdwy.	234.76 / 11.7 / 15	232.86 / 13.6 / 20	223.96 / 22.5 / 50	219.06 / 27.4 / 60 Bottom of wash
3+00	244.46 / 2.0 / 30	242.46 / 4.0 / 20	241.06 / 5.4 / 15	237.46 / 9.0 / 9 edge Rdwy	237.36 / 9.1	237.36 / 9.1 / 5 edge Rdwy	234.26 / 12.2 / 15	232.76 / 13.7 / 20	228.16 / 18.3 / 35	218.86 / 27.6 / 53 = Bottom of Wash
T.P.					246.46					
2+50	228.44 / +6.2 / 30	229.84 / +4.8 / 20	230.44 / +4.2 / 16	232.94 / 1.7 / 13 edge Rdwy.	233.34 / 1.3 edge rdwy.		226.84 / 7.8 / 15	224.34 / 10.3 / 20	218.34 / 16.3 / 34	218.34 / 16.3 / 49 edge water 2.8 deep.
2+15	232.84 / +1.8 / 30	233.64 / 1.0 / 20	230.54 / 4.1 / 15 edge of Rdwy	230.84 / 3.8 edge of Rdwy		226.44 / 8.2 / 6	223.54 / 11.1 / 15	221.74 / 12.9 / 20	218.34 / 16.3 / 31 = edge of water	218.34 / 16.3 / 53

2.8" Deep

234.64

Check B.M. on Rock		7.53	241.65	241.68
B.M. on C.t. R.P. in Conc. cb.		1.78	247.40	
3+82.81 = End. = ℄ Dream on E. Line has Altura₂ ″2				
	Sect. on Sub. Line			
T.P.	570	249.18	2.98	243.48
3+67.70 = opp. Prop. Cor. on Rt.				
3+61 – 10' Lt. = ℄ P. pole & 11' Rt. = ℄ Tel. pole				
3+50				

	Lt.			℄			Rt.	
248.18	247.98	247.40	246.88	243.98	243.38	243.18	236.98	
1.0	1.7	1.78	2.3	5.7	5.8	6.0	12.2	
30	25.86 = N.L. Dream	18 = Top cb.	16	9 edge rdwy.		11 edge Rdwy	25.86 = S.L. Dream	
244.96	245.76	246.36	246.16	242.56	249.18	243.14	236.96	227.36
+1.5	+0.7	+0.10	0.3	3.9	3.8	3.3	9.5	19.1
30	20	14.6 Top cb.	12	6 edge Rdwy		9 edge Rdwy	20	50
245.96	246.06	246.18	245.06	241.56	241.36	242.16	238.96	227.36
+0.5	0.4	0.28	1.4	4.9	5.1	4.3	7.5 10.7	19.1
30	20	16 Top cb.	12	6 edge rdwy.		10 edge rdwy.	20	50

24646

14

X-Sect. 20' Alley in Blk. 14 - Las Alturas #4 - Sketch - P. 1+2

F.O. 5-14-46

Indexed E.S.M.

Station		Lt.		℄		Rt.
1+50			5.0 / 10 / 171.50	4.5 / 172.00	3.7 / 10 / 172.80	
1+00		7.3 / 20 / 169.20	6.6 / 10 / 169.90	5.6 / 170.90	5.1 / 10 / 171.40	4.5 / 20 / 172.00
0+50			9.1 / 10 / 167.40	8.5 / 168.00	7.9 / 10 / 168.60	
0+00 =	E.L. San Jacinto	12.0 / 15 / 164.50	11.6 / 10 / 164.90	11.3 / 165.20	10.6 / 10 / 165.90	10.3 / 15 / 166.20

B.M.	2.23	176.50		173.27
E.C. Hub. P. 10				

176.50

						Lt.		℄		Rt.
3+50							5.1/10 172.76	5.5 172.36	5.9/10 171.96	
B.M. on Hub			2.66	175.20						
3+11.20 = B.C.						2.6/20 175.26	2.2/10 175.66	2.3 175.56	2.4/10 175.46	2.5/20 175.36
2+80						2.6/20 175.26	2.8/10 175.06	2.1 175.76	2.1/10 175.76	2.0/20 175.86
T.P.	2.13	177.86	0.77	175.73				177.86		
2+50							1.4/10 175.10	1.0 175.50	0.4/10 176.10	
2+00						3.5/20 173.0	3.0/10 173.5	2.2 174.30	1.7/10 174.80	1.4/20 175.10
								176.50		

						Lt.	℄	Rt.
℄ Imp. + 53rd								
Check BM. C.t.			12.71	154.95 ✓	154.98			
							155.56	
5+01.92 = W.L. 53rd Sect. on angle on W.L. 53rd							155.66	
						12.1	12.0	11.5
						N.L. Alley 10.91		156.16
								10.91 = S.L. Alley + W.L. 53rd
							154.96	
4+75						8.7	8.8	8.9
						10		10
								154.76
						161.56	162.26	162.16
4+50						6.1	5.4	5.5
						20	10	10
								162.26
								163.06
T.P.	0.80	167.66	11.00	166.86				4.6
								20
						168.16	168.06	167.66
							167.76	
4+00						9.7	9.8	10.1
						20	10	10.5
								167.36
								10.8
								20
								167.06
							177.86	

F.O. 5-15-46

indexed c.s.k.

X-Sect. of 20' Alley in Blk. 13 - Las Alturas No. 4

Sta.	Lt.		℄		Rt.
1+50		12.5 / 10 (161.96)	12.7 (161.76)	13.3 / 10 (161.16)	
1+00	11.6 / 20 (162.86)	12.2 / 10 (162.26)	12.5 (161.96)	12.5 / 10 (161.96)	12.4 / 20 (162.06)
0+50		10.9 / 10 (163.56)	11.8 (162.66)	12.6 / 10 (161.86)	
0+00 = W.L. San Jacinto = B.C.		11.5 / 10 (162.96)	12.0 (162.46)	12.2 / 10 (162.26)	

B.M.	1.19	174.46	173.27

174.46

	Lt.		℄		Rt.
2+70		160.76	160.96		160.76
		13.7	13.5		13.7
		10			10
2+85	160.26	160.16	160.06	159.66	159.76
	14.2	14.3	14.4	14.8	14.7
	20	10		10	20
2+46 = ℄ 4' irregular - Drain ditch			158.06		
			16.4 = bottom of ditch		
2+35	160.46	159.76	159.86	159.66	159.96
	14.0	14.7	14.6	14.8	15.4
	20	10		10	20
1+89.14 = E.C.	162.76	161.86	161.06	160.26	159.36
	11.7	12.6	13.4	14.4	15.1
	20	10		10	20

174.46

4+14.86				
3+90				
3+65.12 = B.C.				
T.P	11.53	179.22	6.77	167.69
3+50				
3+00				

	Lt.		℄		Rt.	
	175.52		175.92	175.12		170.62
	3.7		3.3	4.1		8.6
	20		10		10	20
	172.22		171.12	170.42	170.02	169.42
	7.0		8.1	8.8	8.6	9.4
	20		10		10	20
	169.62		168.42	166.12	166.02	167.42
	9.6		10.8	11.1	11.2	11.8
	20		10		10	20
	167.56		166.66	179.22	166.96	166.26
	6.9		7.8	7.4	7.7	8.2
	20		10		10	20
	161.96		161.96	161.96	161.96	161.96
	12.5		12.5	12.6	12.6	12.6
	20		10		10	20
			174.46			

	Lt.		℄		Rt.
5+00	171.72	170.92	170.92	169.62	169.02
	7.8 20	8.3 10	9.0	9.6 10	10.2 20
4+80	174.72	171.72	171.12	170.12	169.52
	4.5 20	7.5 10	8.1	9.1 10	9.7 20
4+47.6 = approx. opp. Prop. cor. on Rt.	176.62	174.42	174.02	174.32	
	2.6 20	4.8 0	5.2	4.9 10 = prop. cor.	
4+39.73 = E.C. + ℄ of N. + S. alley - Sect. on diagonal	176.52	175.92	175.02	174.32	
	2.7 20	3.3 12.62 = Prop. Cor.	4.2	4.9 12.62 = Prop. Cor.	
4+31.5	176.42	176.42	176.32	174.32	
	2.7 20	2.8 10	2.9	4.9 10 = int. of N.L. + E.L. alleys = Prop cor.	

179.22

B.M. on C.t. + San Jacinto + Imp.
T.P

6+21 = S side Conc. pave 18' wide
To check grade on Imperial

5+80.03 = S.L. Imperial Ave.

5+50

	Lt.	℄	Rt	
			11.88	155.27
	0.49	167.17	12.54	166.68
166.94		165.66	165.37	165.07
	12.28	13.56	13.85	14.15
	50	10 on conc.		10 on conc.
	166.52	166.42	166.52	166.26
	12.7	12.8	12.7	12.6
	20	10		10
	167.62	167.32	167.12	167.22
	11.6	11.9	12.1	12.0
	20	10		10
				166.52
				12.4
				20
				167.52
				11.7
				20

179.22

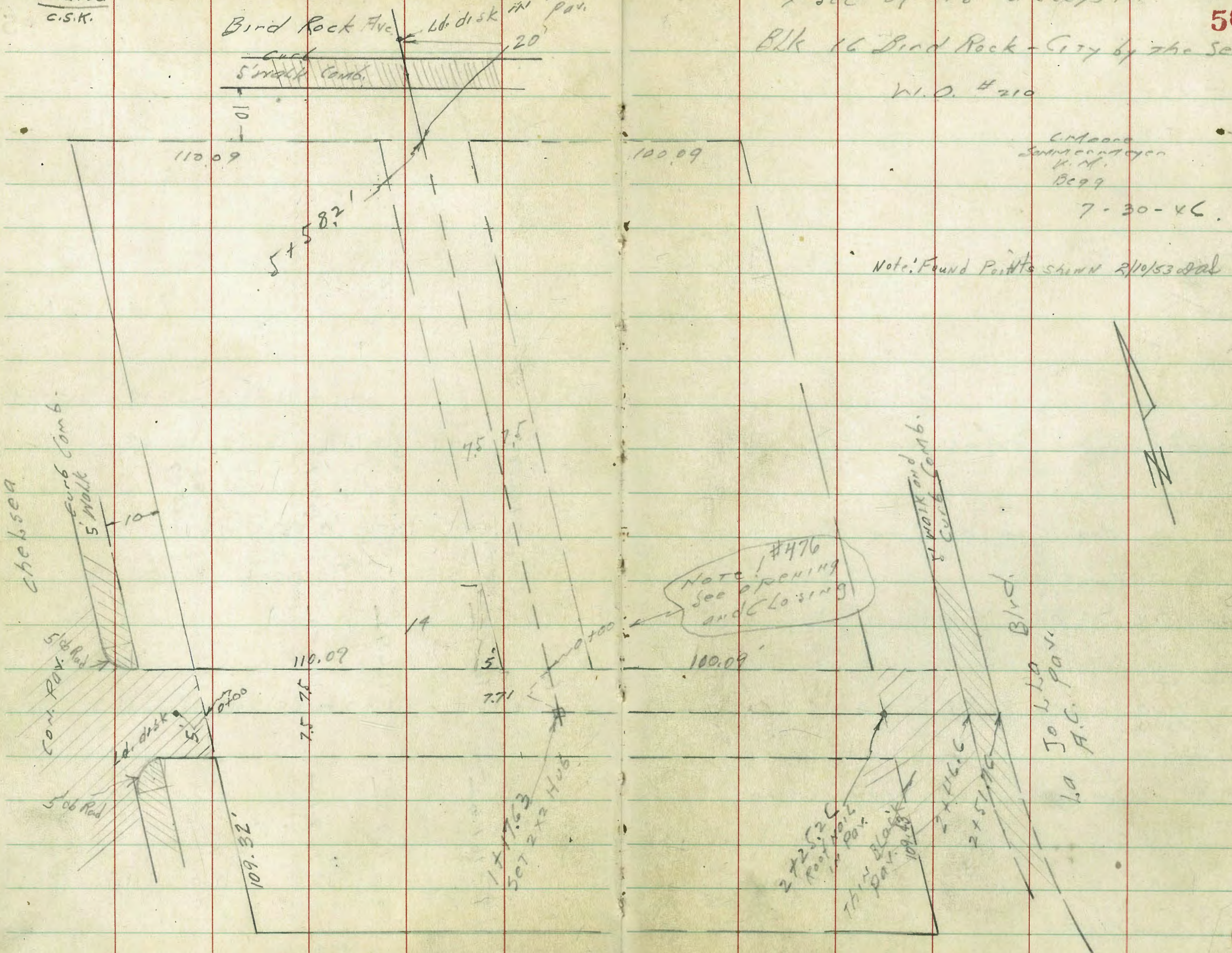
Indexed C.S.K.

X sec of 15' alleys in Blk 16 Bird Rock - City by the Sea.

W.O. #210

7-30-46.

Note: Found Points shown 2/10/53



Forward

X sec of E + W alley

0+20					
0+07					
0+00	= E.L. Chelsea				
0-10	Beg. Con. Brick wall				
0-15.4	E. cb. Chelsea				
T.P. on 2x2 ₵ Hub 1+17.63	2.96	72.58	5.06	69.62	
T.P.	4.78	74.68	11.77	69.90	
BM SWBP La Jolla Blvd. and Bird Rock Ave	2.61	81.67		79.06	← check me on this Elev.

LT = NLY — RT.

Sta.						
0+20		66.8 5.8/7.5	67.0 5.6	66.8 5.8/4	67.8 4.8/7.5	
0+07		64.3 8.3/7.5	64.7 7.9	64.2 8.4/4	65.3 7.3/7.5	
0+00	64.41 8.17/7.7 cb	63.98 8.60/7.7 Pav.	63.76 8.82 Pav.	63.96 8.62/7.7 Pav.	64.11 8.47/7.7	Beg. 4" Conc. Wall 7.7
0-10		Wall 8.2				
0-15.4		63.72 8.86/7.7 Pav.	63.54 9.04 Pav.	63.35 9.23/7.7 Pav.		
T.P.			72.58			

0+69 end Con apron + gav

0+65 Beg. Con. apron + Gav.

0+64 End 4" Con. wall

0+59 Beg. Con. apron + Sw. gav.

0+50 end Con. Blk Wall

0+48 E 2' Con. walk

72.58

L

69.00
3.58
21.0
gav.

68.87
3.71
11.2

R

68.39
4.20
5

68.48
4.10
6

68.50
4.08
7.5

68.57
4.01
18.8
gav.

WALL
7.5

69.01
3.57
19.5

68.75
3.83
10.4

END WALL
8

68.3
4.3
7.5

68.4
4.2

68.3
4.3
7.5

68.27
4.31
4.7

68.27
4.31
7.5

72.58

		Lt	℄	Rt
1+18	Beg. Con apron + Gac.	71.20	70.63	
		1.38 / 20.0	1.95 / 16.5 = SW Cor. of apron	
		↑ SW Cor of Stucco Dwelling		
1+17.3	Valley to North	69.8	69.9	69.9
		2.8 / 7.7	2.7	2.7 / 7.7 end Cypress & hedge
1+00.5	end Con. aprow: No gar.	69.91	69.27	69.3	69.6	69.6
		2.87 / 19.8	3.31 / 7.8 apron	3.3 / 7.5	3.0	3.0 / 7.5
0+85.5	Beg Con apron no gar.	69.63	69.19			
		2.95 / 18.5	3.41 / 7.6			
0+77	Beg. Cypress hedge				N. edge hedge	Roots on line
					18.65	18.60
0+76	End Con. a prow + gar.				2.93 / 4.9	3.97 / 7.5	3.98 / 17.2 gar.
		72.58		72.58		

1+80					
1+77	⊿ in	Bamboo	fence		
1+73	Beg. ornamental		bamboo fence		
1+71	end	Eucal.	hedge		
1+56					
1+45	Beg.	Eucal.	hedge		
T.P. 2x2 Hub	7.91	77.52	0.96	69.6[illegible]	
1+40	Beg.	Cypress	hedge		
1+36	end	Con. apron			
		72.58			

Lt				Rt
	71.9 5.6/7.5	71.9 5.6	71.8 5.7/7.5	
	Fence 9.3			
	Fence 7.5			
	hedge 9.1			
				℄ 8" Tel. Guy Pole 8.8
	hedge 7.7			
		77.53		
	70.6 2.0/7.5	70.5 2.1	70.5 2.1/7.5	hedge 9.4
71.21 1.37/20.5 9.9	70.78 1.80/16.x			
		72.58		

Sections from here on — Taken Parallel with Blvd.

Station	Description		Lt	℄	Rt
2+25.26	= W.L. La Jolla Blvd.		74.13 3.40 / 7.7 Par	74.06 3.47 Par.	74.10 3.43 / 7.7 Par.
2+22.5	S.E. Cor. Stucco Bldg		Cor. Bldg. 7.6		
2+01.5	end 6" Con wall & Sw. Cor Stucco Bldg	73.01 4.46 / 8 wall	Sw Cor Bldg. 7.9		
2+00			72.8 4.7 / 7.5	72.7 4.8	72.8 4.7 / 7.5
1+89	end hedge				Cypress hedge 8.2
1+88	end Bamboo fence	fence 9.5	73.05 4.48 / 8.1 Beg. 6" Con wall		

77.53

77.53

						Lt		℄		Rt
T.P. on 2nd ℄ hub 1+17.63	4.20	73.82	9.81	69.62	69.62					
2+61.76 Pav.						3.78 / 17.7 / 75.65	3.83 / 7.7 / 75.60	3.87 / 75.56	3.95 / 7.7 / 75.48	3.98 / 17.7 / 75.45
T.P.	3.84	79.43	1.94	75.59				79.43		
2+51.76 = W. c6. Blvd. at gutter						2.55 / 17.7 / 74.98	2.61 / 7.7 / 74.92	2.67 / 74.86	2.69 / 7.7 / 74.84	2.71 / 17.7 / 74.82
2+46.6 W. edge walk							1.95 / 7.7 / 75.58	2.00 / 75.53	2.01 / 7.7 / 75.52	
2+41.6							2.30 / 7.7 / 75.23	2.19 / 75.34	2.18 / 7.7 / 75.35	
		77.53						77.53		

X sec of N + S alley
Blk 16 Bird Rock by Sea

Station	Lt = West		℄		Rt
0 + 65	68.5 5.3/30	69.1 4.7/7.5	68.9 4.9	69.2 4.6/7.5	70.4 3.4/30
0 + 40	69.3 4.5/12	69.6 4.2/7.5	69.7 4.1	69.9 3.9/7.5	
0 + 39	℄ 15" R.P. 7				
0 + 35				N.W. Cor. Stucco 10.7	
0 + 12				70.1 3.7/5.4 ground	71.20 2.62 Floor 5.4 Elev. SW Cor. Stucco Bldg.
0 + 00 = N.L. E & W alley	69.3 4.5/12.7	69.5 4.3/7.7	69.6 4.2	69.9 3.9/7.7	

73.82

73.82

		69.9	67.0	68.2	68.5	69.1
		3.9 / 25	6.8 / 7.5	5.6	5.3 / 7.5	4.7 / 40
		69.7	68.4	68.4	68.1	69.5
		4.1 / 25	5.4 / 7.5	5.4	5.7 / 7.5	4.3 / 40
70.5	70.7	69.7	68.4	68.8	68.4	69.2
3.2 / 20	3.1 / 11	4.5 / 7.5	5.4 / 6	5.0	5.4 / 7.5	4.1 / 40
70.6	70.7	69.3	68.0	68.0	68.3	70.2
3.2 / 20	3.1 / 10	4.5 / 7.5	5.8 / 5	5.8	5.5 / 7.5	3.6 / 40
70.7	68.6	68.7	68.9	69.1	70.8	
3.1 / 23	5.7 / 13	5.1 / 7.5	4.9	4.7 / 7.5	3.0 / 40	

73.8 N

L + 25

1 + 13

1 + 10

1 + 00

0 + 80

73.8 N

2+50					
T.P.	8.09	79.57	2.3K	71.48	
2+00					
1+85					
1+68					
1+59	6.3 Lt.	@ 12" P.S.			
1+50					
		73.8 N			

Lt

	72.0	71.8	72.0	72.8	73.3
	7.6 / 25	7.8 / 7.5	7.6	6.8 / 7.5	6.3 / 30
			79.57		
	70.5	70.4	70.5	70.1	67.7
	3.3 / 20	6.4 / 7.5	3.3	2.7 / 7.5	6.1 / 30
	70.1	70.2	70.3	68.9	67.1
	3.7 / 20	2.6 / 7.5	2.5	4.9 / 7.5	2.7 / 30
70.3	70.0	68.6	67.7	67.5	68.0
3.5 / 25	3.8 / 15	5.2 / 7.5	6.1	6.3 / 7.5	5.8 / 35
70.3	67.1	67.8	67.3	66.9	68.8
3.5 / 22	4.7 / 14	6.0 / 7.5	6.6	6.9 / 7.5	5.8 / 40
			73.8 N		

also Beg. Lath fence

4+37 6.6 LT 12" P.P.

4+00

2+84 End Conc. Brick Wall

3+50

3+32.5 Beg. Conc. brick wall

3+20 7.5 LT & 14" P.P.

3+00

79.52

L		R
Fence 7.3		
14.8	14.9	14.9
4.8	4.7	4.7
2.0	7.5	7.5
		15.0
		4.6
		7.5
		15.1
		4.5
		3.0
Conc. Wall 7.8		
	14.2	14.3
	4.7	4.7
	7.5	7.5
		14.4
		4.7
		7.5
		14.1
		4.5
		3.0
Conc. Wall 7.6		
13.1	13.1	13.3
6.5	6.5	6.3
2.0	7.5	7.5
		13.3
		6.3
		7.5
		13.6
		6.0
		3.0

79.57

Station	Description	Lt		℄		Rt
5+58.21	S.L. Bird Rock Ave		75.9 3.7/7.7	76.0 3.6	76.2 3.4/7.7	
5+51					N.W. Cor Bldg. 7.7	
5+35			76.4 3.5[illegible]/7.5	76.4 3.[illegible]	76.5 3.1/7.5	
5+07						S.W. Cor Bldg. 7.8
5+00		75.9 3.7/20	76.3 3.3/7.5	76.4 3.2	76.4 3.2/7.5	76.4 3.2/15
4+90	end Lath fence		Fence 7.7			
4+50		75.2 4.4/20	75.9 3.9/7.5	75.9 3.9	75.9 3.9/7.5	75.8 3.8/20

79.57 →

79.57

check to Orig. B.M.			2,52	79.06	79,06 ✓
5+73.61 in S. gutter pav, Bird Rock ave					
5+73.61 S. cb. Bird Rock ave dipped					
5+70.79					
5+68.49 S. edge walk					
T.P.	5.64	81,58	3,63	75,94	
		79.57			

	Lt		℄		Rt	
		7.05 / 7.7 (74.53)	6.80 (74.76)	6.61 / 7.7 (74.97)		
6.47 / 8.7 Top cb (75.11)	7.05 / 7.7 (74.53)	7.01 / 6.5 (74.57)	6.83 (74.75)	6.63 / 6.5 (74.95)	6.61 / 7.7 (74.97)	5.90 / 8 Top cb (75.68)
		6.27 / 7.7 (75.31)	6.03 (75.55)	5.77 / 7.7 (75.81)		
		6.18 / 7.7 (75.40)	5.94 (75.64)	5.71 / 7.7 (75.87)		
			81.58			

Indexed C.S.K.

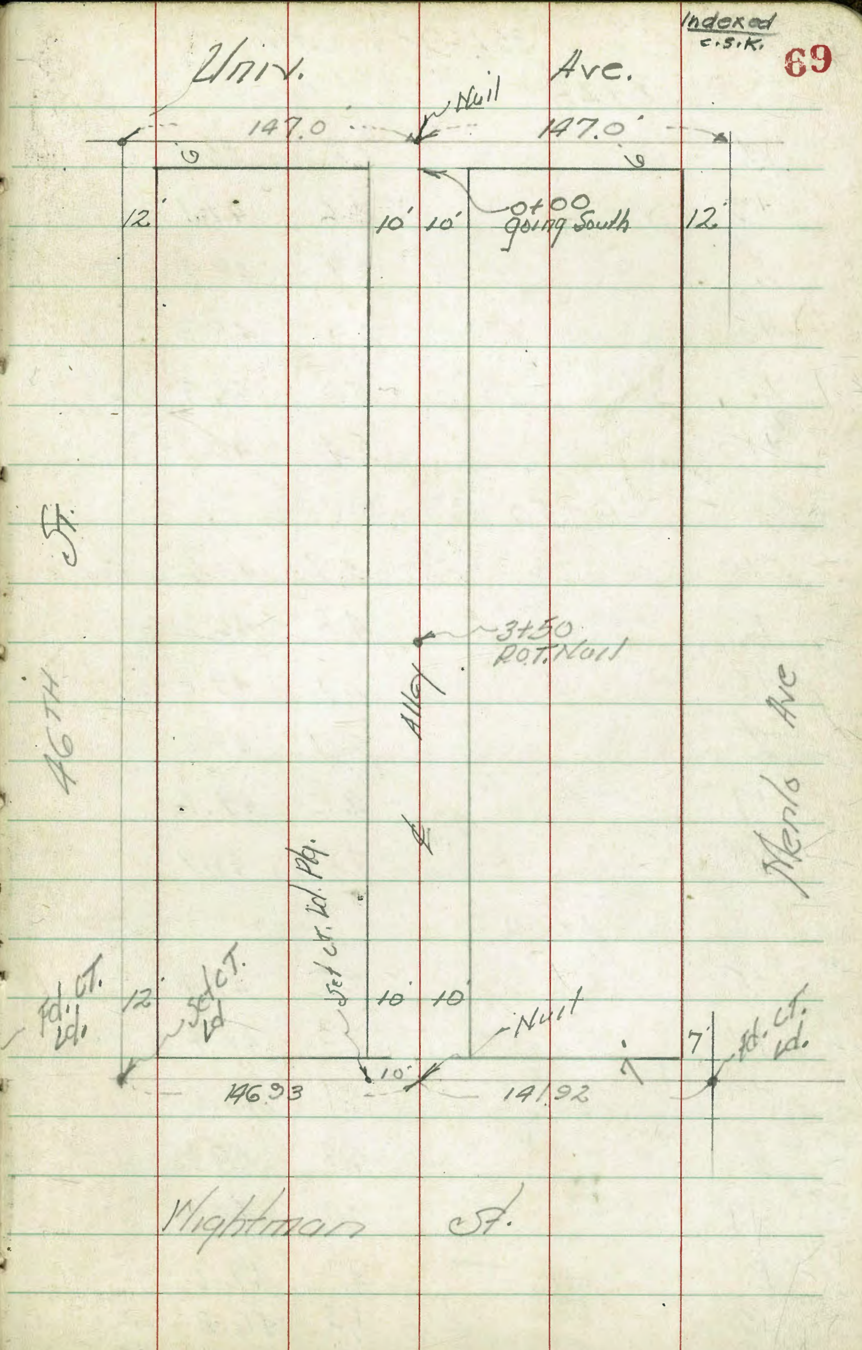
Walker,
Hendricks
Becker
8-26-46

Cross Section 20' Alley
Between 46th And Menlo Ave
from Univ. Ave. to Wightman St.

Blk 15 - Fairmount + 2, Mountain View

BM BP.N.W. Univ. Ave + 47th St

	0.46	351.69		351.23
0-15' = South cb Line Univ. Ave				
E. cb			5.31	46.38
Gut.			5.81	45.88
℄			5.54	46.15
W. Gut.			5.27	46.42
W cb.			4.76	46.93
0+00 = S.L. Univ. Ave				
W cb			4.51	47.18
Gut.			4.71	46.98
℄			5.01	46.68
E Gut.			5.15	46.54
E cb.			5.18	46.51
0+07				
-10			5.6	46.1
E			4.6	47.1
℄			4.1	47.6
+6			4.0	47.7
W			2.7	49.0



	351.69	Alley		
	0+28			
W		1.7	50.0	
+2		2.6	49.1	
℄		2.7	49.0	
+5		2.9	48.8	
E.		5.0	46.7	
+10		5.4	46.3	
	0+50			
-10		5.1	46.6	
E.		4.8	46.9	
+5		2.7	49.0	
℄		2.7	49.0	
+7		2.6	49.1	
W		1.8	49.9	
	1+00			
+5		2.3	49.4	
W		2.3	49.4	
+2		2.7	49.0	
℄		2.8	48.9	
+7		2.8	48.9	
E.		4.1	47.6	
+5		5.4	46.3	

		351.69			
		1+05			
-5			3.2	48.5	
E			3.5	48.2	
+4			2.7	49.0	
℄			2.8	48.9	
W			2.6	49.1	
TP	7.23	356.85	2.07	349.62	
0+00 to 0+60 = Brick Bld. on West on Line					
1+01 = Elec. Pole on W 1.5' in Alley					
1+31 = ℄ 2.5' Conc. Walk on W 2.0 Back			7.85	49.00	
1+31 12' W. W.L. on "			7.55	49.30	
1+45 = ℄ Garage on W			7.20	49.15	0.4' in Alley
1+50					
W			7.5	49.3	
℄			7.5	49.3	
E.			7.2	49.6	
+5			7.2	49.6	
		Floor =	6.63	50.22	
1+57 = ℄ Garage on 5.4 Back Conc. Floor.					
1+54 = ℄ Garage on W			7.3	49.5	Dirt Floor 1.8 Back
1+62 " " " "			7.1	49.7	Dirt Floor 1.8 Back

356.85 Alley

1+75

-5	6.5	50.3
E	6.6	50.2
+3	6.3	50.5
℄	66	50.2
+7	6.5	50.3
W	6.7	50.1
+5	6.7	50.1

Floor = 3.90 50.95

1+80 = ℄ Garage on E 5.8' Back Conc. Floor

2+00

W	5.6	51.2
℄	5.7	51.1
E	5.7	51.1
+5	5.8	51.0

2+01.5 = Elec. Pole on W 1.5' in Alley

5.9 50.9

2+07.5 = ℄ Garage on E Dirt Floor 5' Back

2+50

-4	5.4	51.4
E	5.1	51.7
℄	5.1	51.7
W	4.8	52.0
+5	5.4	51.4

356.85

2+02 to 2+50 = 45 Board Fence on W 0.2' in Alley

2+75

-5	5.4	51.4
W	4.8	52.0
℄	4.8	52.0
+5	4.7	52.1
E	4.5	52.3
+5	4.7	52.1

2+55 Board Fence on W 0.4' in Alley

3+00 " " W Line Elec. Pole on W Line Alley

-5	4.8	52.0
E	4.8	52.0
℄	5.0	51.8
W	4.9	51.9
	5.0	51.8

3+11 = Garage on W 2.8' Back Broken Conc. Floor

3+25

-5	5.1	51.7
W	5.0	51.8
℄	5.0	51.8
E	4.8	52.0

3+00 to 3+10 = Shed on E 0.8' in Alley

3+10 to 3+25 = Board Fence on E 0.8' in Alley

	356.85		Alley
	3+50		
-5		5.3	51.5	
E		5.0	51.8	
℄		5.1	51.7	
W		5.2	51.6	
+5		5.3	51.5	
3+55 = ℄ Garage on W		5.09	51.76	Conc. Floor 1' Back
3+64 " " " "		5.33	51.52	"
		Rod = 5.0	51.8	
3+63 = ℄ Garage on E		5.5	Back	Dirt Floor 5.5' Back
3+75 " " " "	Rod	5.1	51.7	Dirt Floor
3+94 = ℄ Garage on W		5.67	51.18	Conc. Floor 0.5' Back
	3+75			
W		5.6	51.2	
℄		5.5	51.3	
E		5.2	51.6	
	4+00			
-5		6.3	50.5	
E		6.2	50.6	
℄		6.4	50.4	
+85 = Elec. Pole				
W		6.8	50.0	

	356.85		
-5		8.0	48.8
W		7.8	49.0
+1		8.0	48.8
+2		7.5	49.3
℄		7.4	49.4
E		7.3	49.5
+5		7.3	49.5
	4+50		
-5		8.0	48.8
E		7.9	48.9
+5		8.2	48.6
℄		8.4	48.4
W		8.6	48.2
4+59 = Beg Conc. Apron to 3 Car garage on W			
-3.8' at Garage		9.16	47.69
W+0.2' = Toe Conc Apron		9.24	47.61
℄		8.7	48.1
E		8.5	48.3
+5		8.6	48.2
4+78.5			
		957	47.28
0.2 E of W.L. on Toe Conc. Apron			
3.8' W W.L. = Garage Floor		9.34	47.51

	356.85	Alley	
	Floor = 9.5	46.3	Dirt Floor
4+82 = ℄ Garage on E		3.3' Back	
	9.9	46.0	
4+93 = ℄ Garage on E	Dirt Floor	3.3' Back	
4+87 = End Conc. Apron on W 3 Car garage			
-3.8 = Garage Floor	9.77	47.08	
W+0.2 = Toe Conc. Apron	9.98	46.87	
+5	10.5	46.3	
℄	10.6	46.2	
+7	10.3	46.5	
E	9.7	47.1	
+3	9.5	47.3	
5+05			
~~-4~~	10.2	46.6	
E	10.6	46.2	
℄	11.0	45.8	
+W	10.6	46.2	
W 5+25 = Elec. Pole on W		0.5 in Alley	
-5	11.6	45.2	
W	11.6	45.2	
℄	11.6	45.2	
+6	11.5	45.3	
E	11.7	45.6	
+4	10.8	46.0	

	356.85		
5+50			
-5	11.4	45.4	
E	11.8	45.0	
℄	12.0	44.8	
W	11.9	44.9	
+2	11.9	44.9	
5+75			
W	12.6	44.2	
℄	12.5	44.3	
E	12.2	44.6	
T.P.	261 347.17	12.29	344.56
5+90			
E	2.9	44.3	
℄	3.5	43.7	
W	3.2	44.0	
6+00.07 = N.L. Highman			
W Cb	3.80	43.37	
Gut.	4.0	43.2	
℄	4.2	43.0	
Gut	4.0	43.2	
E Cb	3.88	43.29	

	6+15.07	347.17		Alley
E-124.92	cb.	W.L. Menlo	4.65	42.52
"	Paving Gut	"	5.31	41.86
E cb.			4.13	43.04
Gut			4.7	42.5
℄			4.6	42.6
Gut.			4.7	42.5
cb.			4.11	43.06
W + 124.93	= E.L. 46th St. Gut Paving		4.27	42.90
"	cb.		3.70	43.47
T.P.	5.89	351.27	1.79	345.38
Chk. N.W. B.P.			3.36	347.91
	Chamoune & Wightman			347.93
				0.02

Completed 8-27-46

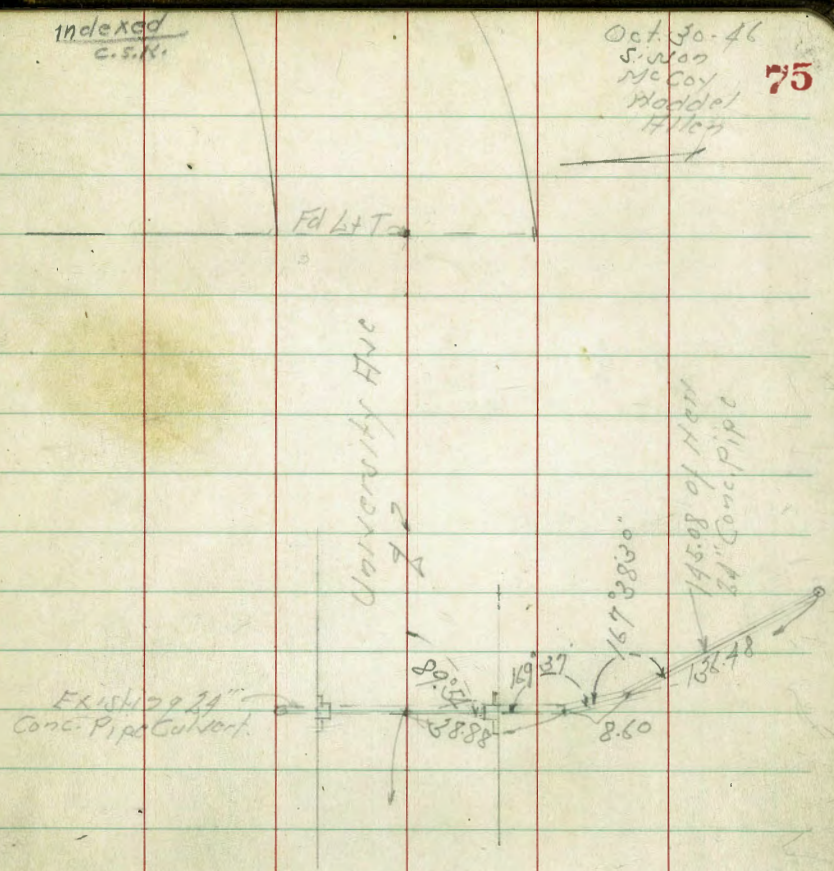
Location of Extension Storm Drain
University Ave East of 5th St.

Indexed
C.S.K.

Oct. 30-46
S. Nan
McCoy
Waddel
Allen

75

BM	0.48	310.50 ✓	310.02	NW BP University & 5th St
38.88 South of ℄ University = Sly of old 24" Conc Pipe		8.33	302.17	Top Pipe
47.48 So. of ℄ Univ = A		8.47	302.03	
183.96 So. of ℄ Univ = Sly Hex 24" Conc Pipe		10.20	300.30	Top
"		12.43	298.07	Flow Line

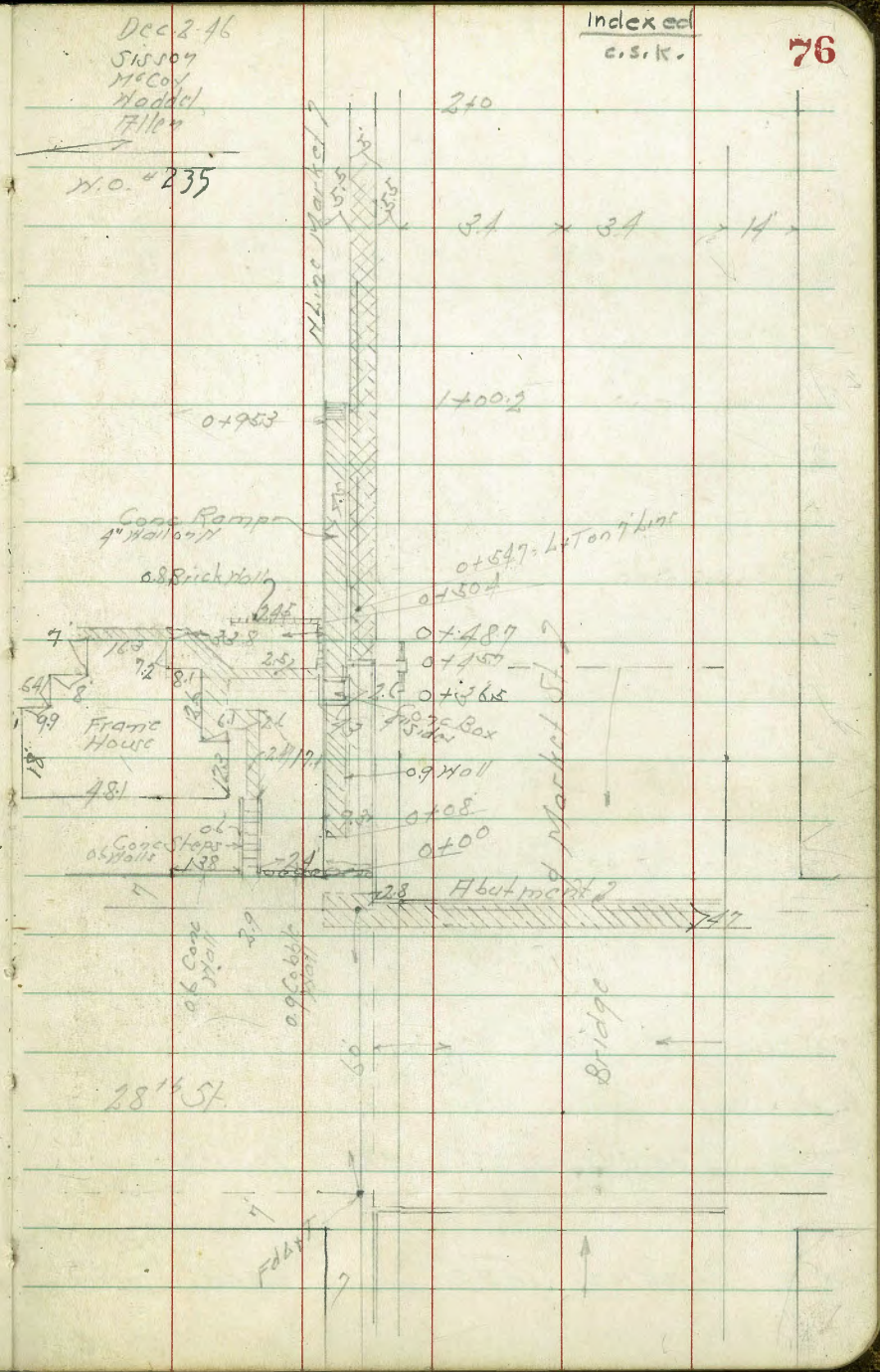


Topog. Market + 28th St.

Dec 2-46
Sisson
McCoy
Waddell
Allen

W.O. #235

Indexed
C.S.K.



Levels Market St + 28th St.

						Lt: N	Rt: S
0+26.5						119.3 / 4.33 / 23.8 = Sly House on floor; 117.11 / 6.15 / 19.6 = Sly Conc Conc Landing; 115.96 / 7.30 / 0.0 = Bottom Conc Box; 118.21 / 5.05 = Top NW Cor Box	115.56 / 7.70 / 2 = Conc Ramp; 118.18 / 5.08 / 4.8 = Sly Top Box; 117.23 / 6.03 / 4.3 = Top of Conc Wall
0+26.5							113.41 / 9.85 / 20 = Conc Ramp
TP	6.98	123.26	0.98	116.28	0.25 E Cor Xord Walk	123.26	
0+08	= West End of Conc. Ramp						110.91 / 6.35 / 4 = Conc. Wall; 110.04 / 7.21 / 4 = Conc Ramp
0+0	= E.L. 28th St					108.16 / 9.1 / 15 = Ground; 111.50 / 5.76 / 15 = Top Cobble Wall; 107.36 / 9.9 = Ground Base Wall	111.28 / 5.98 / 6.0 = Top Cobble Wall; 111.21 / 6.05 / 9.7 = Top Cobble Wall; 107.66 / 10.2 / 9.7 = Ground
0-10	= FCb 28th St					106.88; 10.38 = Cb End	11.08 / 0.0 = Gutter; 106.18
TP	10.34	117.26	1.88	106.92		117.26	
BM	10.77	108.80		98.03	S.W. B.P. Island + 28th St		

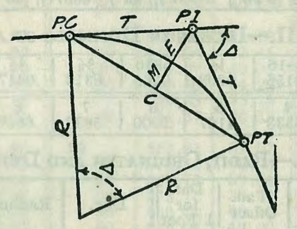
Lt. | H Line Marked ? | Rt.

TP	8.56	138.06	0.42	129.50	
0+77					124.17 / 4.75 / 0.0=Top 4" Wall; 124.87 / 5.05 =Ramp; 125.05 / 0.87 / 4.5=Top 8" Wall; 128.90 / 1.02 / 10.5=S/Walk; 128.82 / 1.10 / 16=Cb; 128.33 / 1.59 / 16=Gutter
0+57					120.78 / 9.14 / 10.0=Top 4" Wall; 120.42 / 9.50 =N/Ramp; 128.37 / 1.55 / 4.5=Top 8" Walk N/Walk; 128.24 / 1.68 / 10.5=S/Walk; 127.99 / 1.93 / 16=Cb; 127.20 / 2.72 / 16=Gutter
0+50.7					121.82 / 8.10 / 24.5=N/Top Brick Wall; 119.97 / 9.95 / 6.0=Top Brick Wall & 4" Wall; 118.89 / 11.03 =N/Ramp
0+45.7					117.80 / 12.12 =N/Ramp & Brick Wall; 119.79 / 10.13 / 3.8=E/Top 4" Wall; 128.22 / 1.70 / 4.5=Top 8" Conc Wall; 127.78 / 2.14 / 16=top Cb; 126.79 / 3.13 / 16=grating; 128.32 / 1.60 / 50=of Bridge on Deck
TP	8.75	129.92	2.09	121.17	129.92
0+39	=E/y Conc Box				116.87 / 6.39 =N/Conc Ramp; 118.29 / 4.97 / 4.3=N/Top 4" Wall
		123.26			123.26

							Lt = N			Rt = S	
BM			13.25	130.92	N.E.B.P. Market + 29th St 131.06						
TP	9.79	144.17	3.68	134.38							
2+0									137.16 0.90 4.5 = Nly walk	137.00 1.06 16 = Cb	136.44 1.62 16 = Gutter
1+75									135.62 2.44 4.5 = Nly walk	135.53 2.54 16 = Cb	134.87 3.19 16 = Gutter
1+50									133.88 4.18 4.5 = Nly walk	133.75 4.31 16 = Cb	133.09 4.97 16 = Gutter
1+25									132.08 5.98 4.5 = Nly walk	131.93 6.13 16 = Cb	131.24 6.82 16 = Gutter
1+00.2 = E Conc Steps								132.01 6.05 Top Steps			
0+95.3 = Ely Ramp + Wly 6 Steps up							129.34 8.72 6.0 = Top 4" wall	129.03 9.03 = Nly Ramp	130.01 8.05 4.5 = Top Ely 8" wall + Nly wall	129.94 8.12 10.5 = Sly walk	129.83 8.23 16 = Cb / 129.33 8.73 16 = Gutter
		138.06						138.06			

BM	0.11	131.03		130.92	NE BP Market + 27th St
TP	0.72	119.15	12.60	118.43	
TP	0.53	107.61	12.07	107.08	
BM			9.57	98.04	SW BP Island + 38th St 98.03

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

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

External $= E = T\tan\frac{\Delta}{4}$ (7) $= R \div \cos.\frac{\Delta}{2} - R$ (8) $= R\,\mathrm{exsec}\frac{\Delta}{2}$ (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 $(54.50 \div 100)^2$=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 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 115.37. For from Table IV for 1° curve E=960.6 for 8° 20′=960.6 ÷ 8⅓=115.27 and from Table V correction=.10 or E=115.37 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.