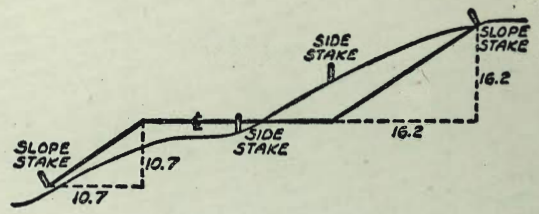
2320

STORM DRAINS



Distances from Side Stakes for Cross-Sectioning

Slope 1 to 1. Roadway of Any Width

	0	.1	.2	.3	.4	.5	.6	.7	.8	9	
0	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0
1	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	1
2	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	2
3	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	3
4	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	4
5	5.00	5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80	5.90	5
6	6.00	6.10	6.20	6.30	6.40	6.50	6.60	6.70	6.80	6.90	6
7	7.00	7.10	7.20	7.30	7.40	7.50	7.60	7.70	7.80	7.90	7
8	8.00	8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80	8.90	8
9	9.00	9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80	9.90	9
10	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	10
11	11.00	11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	11
12	12.00	12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	12
13	13.00	13.10	13.20	13.30	13.40	13.50	13.60	13.70	13.80	13.90	13
14	14.00	14.10	14.20	14.30	14.40	14.50	14.60	14.70	14.80	14.90	14
15	15.00	15.10	15.20	15.30	15.40	15.50	15.60	15.70	15.80	15.90	15
16	16.00	16.10	16.20	16.30	16.40	16.50	16.60	16.70	16.80	16.90	16
17	17.00	17.10	17.20	17.30	17.40	17.50	17.60	17.70	17.80	17.90	17
18	18.00	18.10	18.20	18.30	18.40	18.50	18.60	18.70	18.80	18.90	18
19	19.00	19.10	19.20	19.30	19.40	19.50	19.60	19.70	19.80	19.90	19
20	20.00	20.10	20.20	20.30	20.40	20.50	20.60	20.70	20.80	20.90	20
21	21.00	21.10	21.20	21.30	21.40	21.50	21.60	21.70	21.80	21.90	21
22	22.00	22.10	22.20	22.30	22.40	22.50	22.60	22.70	22.80	22.90	22
23	23.00	23.10	23.20	23.30	23.40	23.50	23.60	23.70	23.80	23.90	23
24	24.00	24.10	24.20	24.30	24.40	24.50	24.60	24.70	24.80	24.90	24
25	25.00	25.10	25.20	25.30	25.40	25.50	25.60	25.70	25.80	25.90	25
26	26.00	26.10	26.20	26.30	26.40	26.50	26.60	26.70	26.80	26.90	26
27	27.00	27.10	27.20	27.30	27.40	27.50	27.60	27.70	27.80	27.90	27
28	28.00	28.10	28.20	28.30	28.40	28.50	28.60	28.70	28.80	28.90	28
29	29.00	29.10	29.20	29.30	29.40	29.50	29.60	29.70	29.80	29.90	29
30	30.00	30.10	30.20	30.30	30.40	30.50	30.60	30.70	30.80	30.90	30
31	31.00	31.10	31.20	31.30	31.40	31.50	31.60	31.70	31.80	31.90	31
32	32.00	32.10	32.20	32.30	32.40	32.50	32.60	32.70	32.80	32.90	32
33	33.00	33.10	33.20	33.30	33.40	33.50	33.60	33.70	33.80	33.90	33
34	34.00	34.10	34.20	34.30	34.40	34.50	34.60	34.70	34.80	34.90	34
35	35.00	35.10	35.20	35.30	35.40	35.50	35.60	35.70	35.80	35.90	35
36	36.00	36.10	36.20	36.30	36.40	36.50	36.60	36.70	36.80	36.90	36
37	37.00	37.10	37.20	37.30	37.40	37.50	37.60	37.70	37.80	37.90	37
38	38.00	38.10	38.20	38.30	38.40	38.50	38.60	38.70	38.80	38.90	38
39	39.00	39.10	39.20	39.30	39.40	39.50	39.60	39.70	39.80	39.90	39
40	40.00	40.10	40.20	40.30	40.40	40.50	40.60	40.70	40.80	40.90	40
41	41.00	41.10	41.20	41.30	41.40	41.50	41.60	41.70	41.80	41.90	41
42	42.00	42.10	42.20	42.30	42.40	42.50	42.60	42.70	42.80	42.90	42
43	43.00	43.10	43.20	43.30	43.40	43.50	43.60	43.70	43.80	43.90	43
44	44.00	44.10	44.20	44.30	44.40	44.50	44.60	44.70	44.80	44.90	44
45	45.00	45.10	45.20	45.30	45.40	45.50	45.60	45.70	45.80	45.90	45
46	46.00	46.10	46.20	46.30	46.40	46.50	46.60	46.70	46.80	46.90	46
47	47.00	47.10	47.20	47.30	47.40	47.50	47.60	47.70	47.80	47.90	47
48	48.00	48.10	48.20	48.30	48.40	48.50	48.60	48.70	48.80	48.90	48
49	49.00	49.10	49.20	49.30	49.40	49.50	49.60	49.70	49.80	49.90	49
50	50.00	50.10	50.20	50.30	50.40	50.50	50.60	50.70	50.80	50.90	50

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance from side stake to slope stake. If ground is not level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.

Table XIII—Corrections for Tangents and Externals

These corrections are to be added to the approximate values, found by dividing the tangent, or external, for a 1° curve (Table VIII) by the degree of curve, in order to obtain the true tangents, or externals. Intermediate values may be obtained by interpolation.

For Tangents Add

Central Angle	Degree of Curve													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	03	.06	09	13	16	19	.22	.25	.28	.31	34	38	42	.46
15°	04	10	14	19	24	.29	.34	.39	45	.51	.53	58	.63	.68
20°	06	.13	19	26	.32	.39	.45	.51	.58	.65	.72	79	.84	.90
25°	.08	16	24	.33	40	49	.58	67	.75	.83	90	.99	1.06	1.14
30°	10	19	.29	39	49	.59	.69	79	.89	.99	1.09	1.20	1.29	1.39
35°	11	22	.34	47	.58	.69	.70	.81	.92	1.04	1.29	1.42	1.54	1.66
40°	13	.26	.40	.53	.67	.80	.93	1.06	1.20	1.34	1.49	1.64	1.79	1.94
45°	15	.30	44	60	76	91	1.06	1.21	1.37	1.52	1.70	1.87	2.04	2.21
50°	17	.34	.51	.68	.85	1.02	1.19	1.36	1.54	1.72	1.91	2.10	2.29	2.48
55°	19	38	.57	76	.95	1.14	1.32	1.52	1.72	1.92	2.14	2.35	2.56	2.77
60°	21	42	.63	.84	1.05	1.27	1.49	1.71	1.94	2.17	2.38	2.60	2.83	3.07
65°	23	46	.69	.93	1.16	1 40	1.64	1.88	2.13	2.38	2.63	2.88	3.13	3.39
70°	25	.51	76	1.02	1.28	1.54	1.80	2.06	2.33	2.60	2.88	3.16	3.44	3.72
75°	27	.56	.83	1.12	1.40	1.69	1.98	2.27	2.57	2.87	3.16	3.47	3.78	4.09
80°	30	.61	.91	1.22	1.53	1.84	2.15	2.46	2 78	3.10	3.44	3.78	4.12	4.46
85°	33	66	1.00	1.33	1.68	2.02	2.36	2 70	3.05	3.40	3.77	4.14	4.55	4 89
90°	36	.72	1.09	1.45	1.83	2.20	2.57	2.94	3.32	3.70	4.10	4.50	4.91	5.32
95°	39	79	1.19	1.55	2.00	2.40	2.80	3.20	3.61	4.02	4.40	4.98	5.38	5.83
100°	43	.86	1.30	1.74	2.18	2.62	3.06	3.50	3.95	4.40	4.88	5.37	5.85	6.34
110°	51	1.03	1.56	2.08	2.61	3.14	3.67	4.21	4 76	5.31	5 86	6.43	7 01	7 60
120°	62	1.25	1 93	2.52	3.16	3.81	4 45	5.11	5.77	6 44	7 12	7.80	8.50	9 22

For Externals Add

Central Angle	Degree of Curve													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.001	.003	.004	.006	.007	.008	.009	.011	.012	.014	.015	.017	.018	.020
15°	.003	.007	.010	.014	.018	.023	.027	.029	.032	.035	.039	.043	.047	.051
20°	.006	.011	.017	.022	.028	.034	.038	.045	.051	.057	.063	.070	.076	.083
25°	.009	.018	.027	036	.046	.056	.065	.074	.083	.093	.106	120	127	135
30°	.013	.025	.038	.051	.065	.078	.090	.103	.116	.129	.149	.170	.179	.188
35°	.018	.035	.054	.072	.086	.109	.131	.153	.175	.197	.213	.230	.247	.264
40°	.023	.046	.070	.093	.117	.141	.172	.203	.234	.265	.277	.290	.315	.341
45°	.030	.060	.093	.119	.153	.184	.216	.254	.289	.325	.351	.378	.411	.445
50°	.037	.075	.116	.151	.189	.227	.266	.305	.345	.384	.425	.467	.508	.550
55°	.046	.093	.142	.188	.236	.283	.332	.381	.420	.479	.530	.582	.641	.700
60°	.056	.112	.168	.225	.283	.340	.398	.457	.516	.575	.636	.697	.774	.851
65°	.067	.135	.204	.273	.343	.412	.483	.554	.625	.697	.711	.845	.922	1.01
70°	.080	.159	.240	.321	.403	.485	.568	.652	.735	.819	.906	.994	1.08	1.17
75°	.095	.182	.286	.383	.480	.578	.678	.777	.877	.977	1.07	1.18	1.29	1.39
80°	.110	.220	.332	.445	.558	.671	.787	.903	1.02	1.13	1.25	1.38	1.50	1.62
85°	.128	.259	.391	.524	.657	.790	.926	1.06	1.20	1.34	1.47	1.62	1.76	1.91
90°	.149	.299	.450	.603	.756	.910	1.07	1.22	1.38	1.54	1.70	1.87	2.03	2.20
95°	.174	.350	.522	.706	.985	1.06	1.25	1.43	1.62	1.80	1.99	2.18	2.38	2.58
100°	.200	.401	.604	.809	1.01	1.22	1.43	1.64	1.85	2.06	2.28	2.50	2.73	2.96
110°	.268	.536	.806	1.08	1.35	1.63	1.91	2.20	2.48	2.76	3.05	3.35	3.66	3.96
120°	.360	.721	1.08	1.45	1.82	2.19	2.57	2.95	3.33	3.72	4.11	4.50	4.91	5.32

Index on Page I

Index

Ties. California St. at Nutmeg

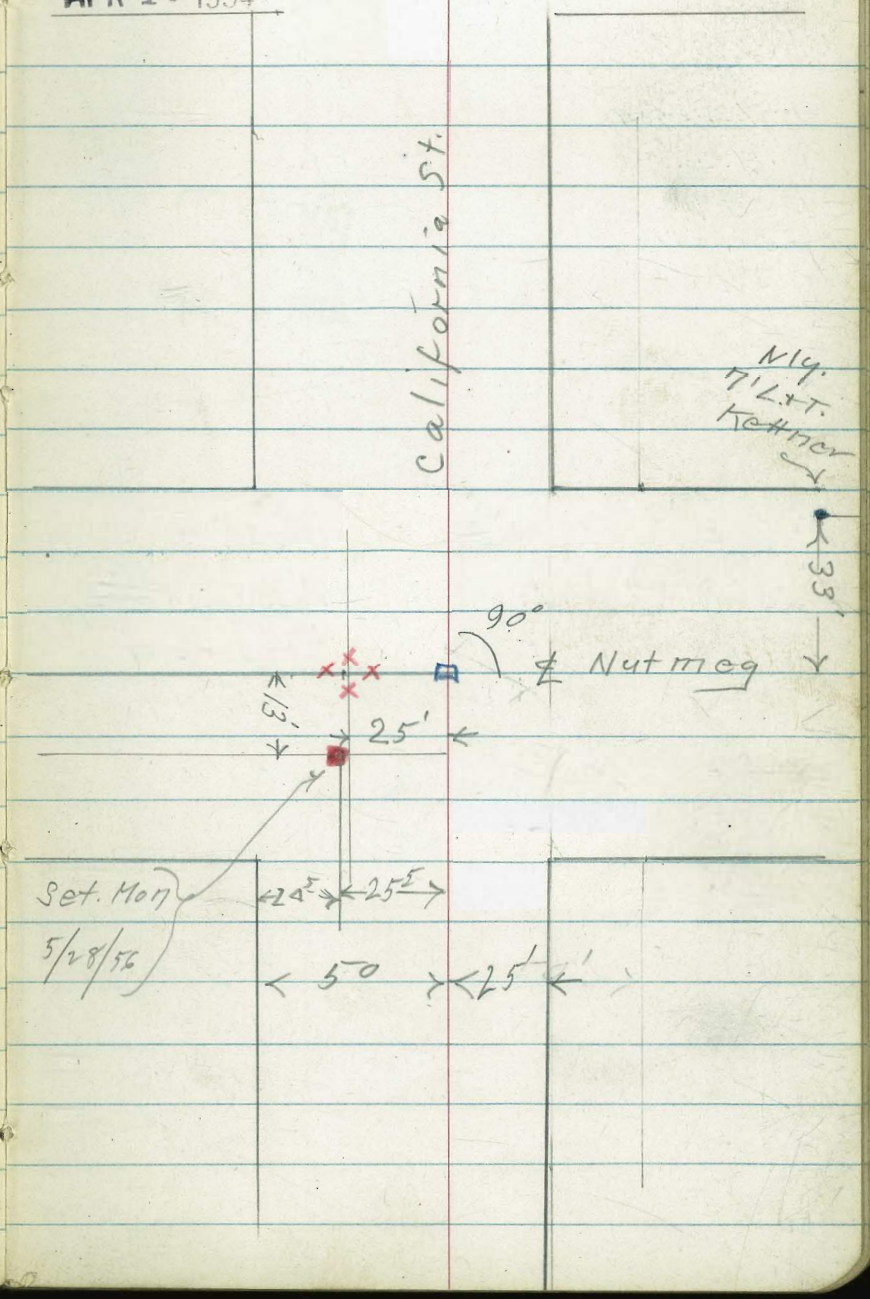
4-14-54
C.H.S.
B.C.99
Schelin
Pullen

- ● denotes Fd L.+T. disk or
- ■ denotes Fd. Conc. Mon.
- ▫ " " " ½
- • " " " Nail
- ▪ " Set Conc. Mon
- ▫ " " ½
- ● " " Disk
- • " " P.K. Nail
- × " cut cross

xx xx denotes cut crosses in M.H. Rim.

Cut 4 crosses on M.H. Rim

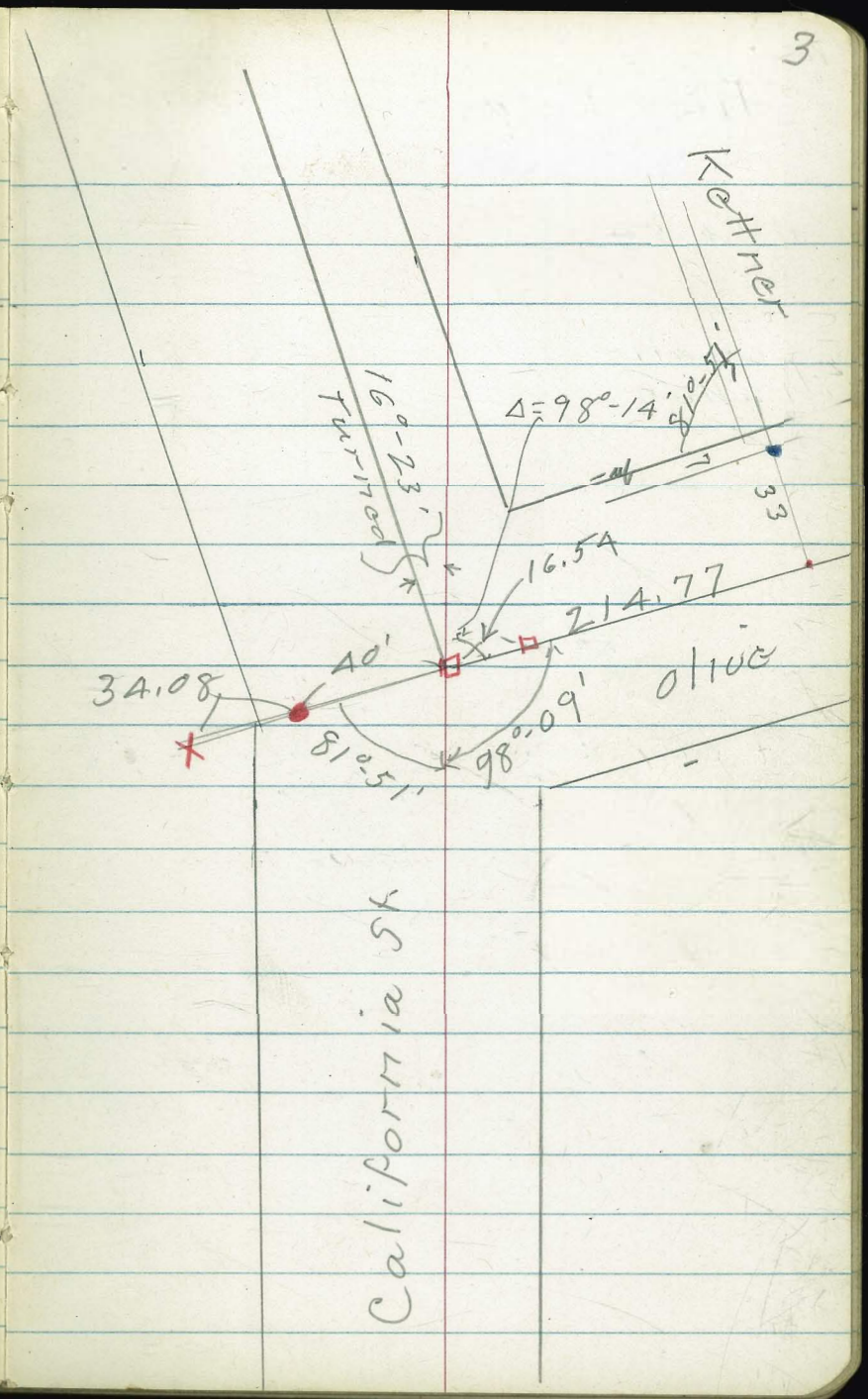
Also See F.B. 2322



Ties Olive + California

4-14-54
C.H.S.
B@99
Schelin
Pullen

3/4 + Tack set on P.I.
40' R.P. to P.I. = City disk in Pave.
74.08 R.P. to P.I. = Cross on wall of Bldg. 6' above pave.

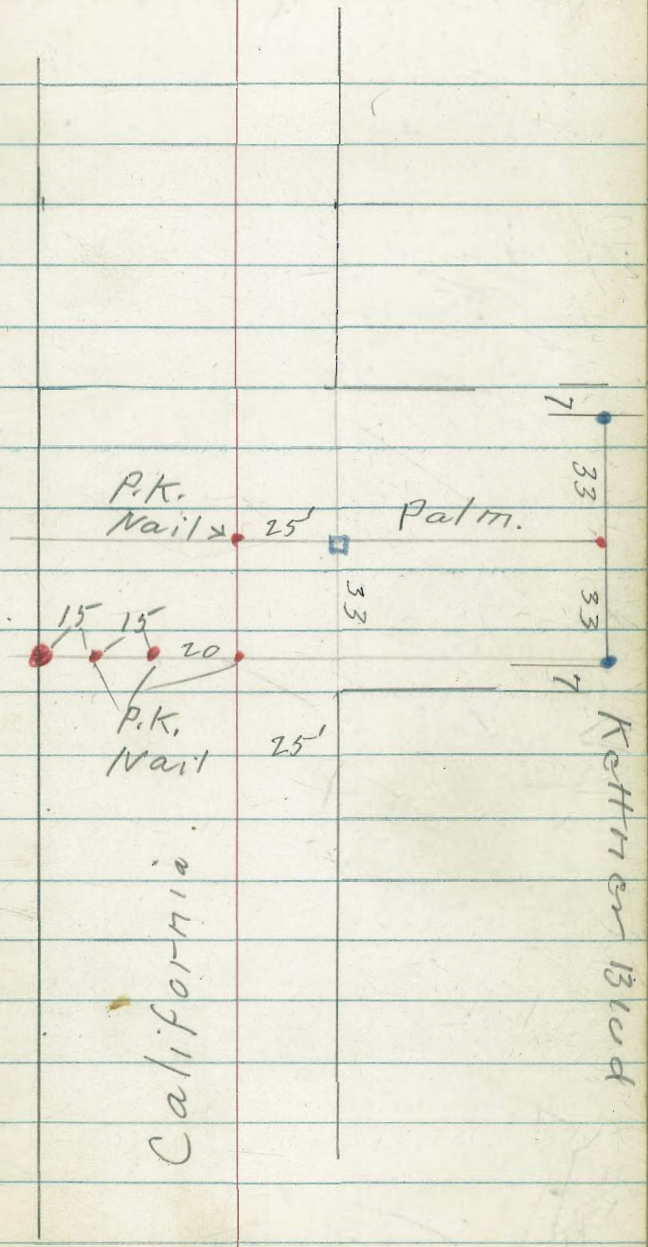


Ties - Palm + California

4-14-54
C.H.S.
Begg
Schelin
Pullen

FB. 571
586
2121

Set city disk - wly line Calif.
+ sly. 7' line Palm.

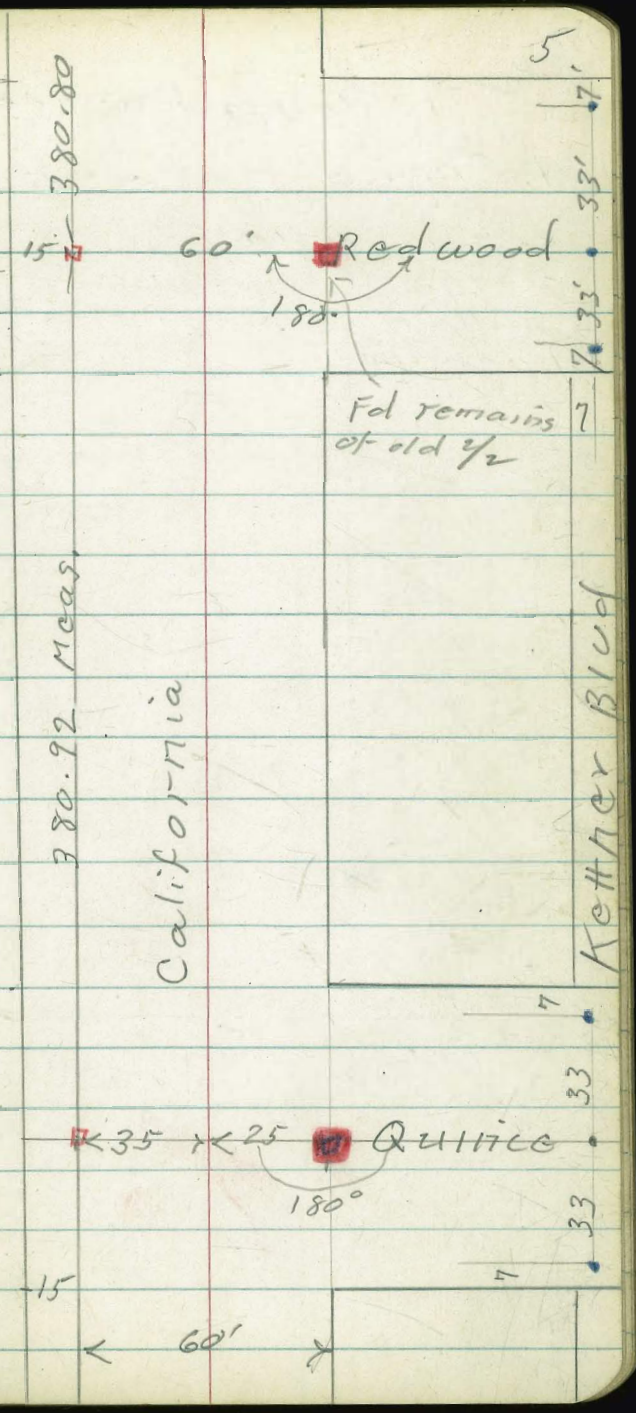


Tie Points California St
at Quince & Redwood
C.H.S. - 4-14-54

distance from Quince
to Sassafras chained
& apportioned as per
Tie shoot distance.

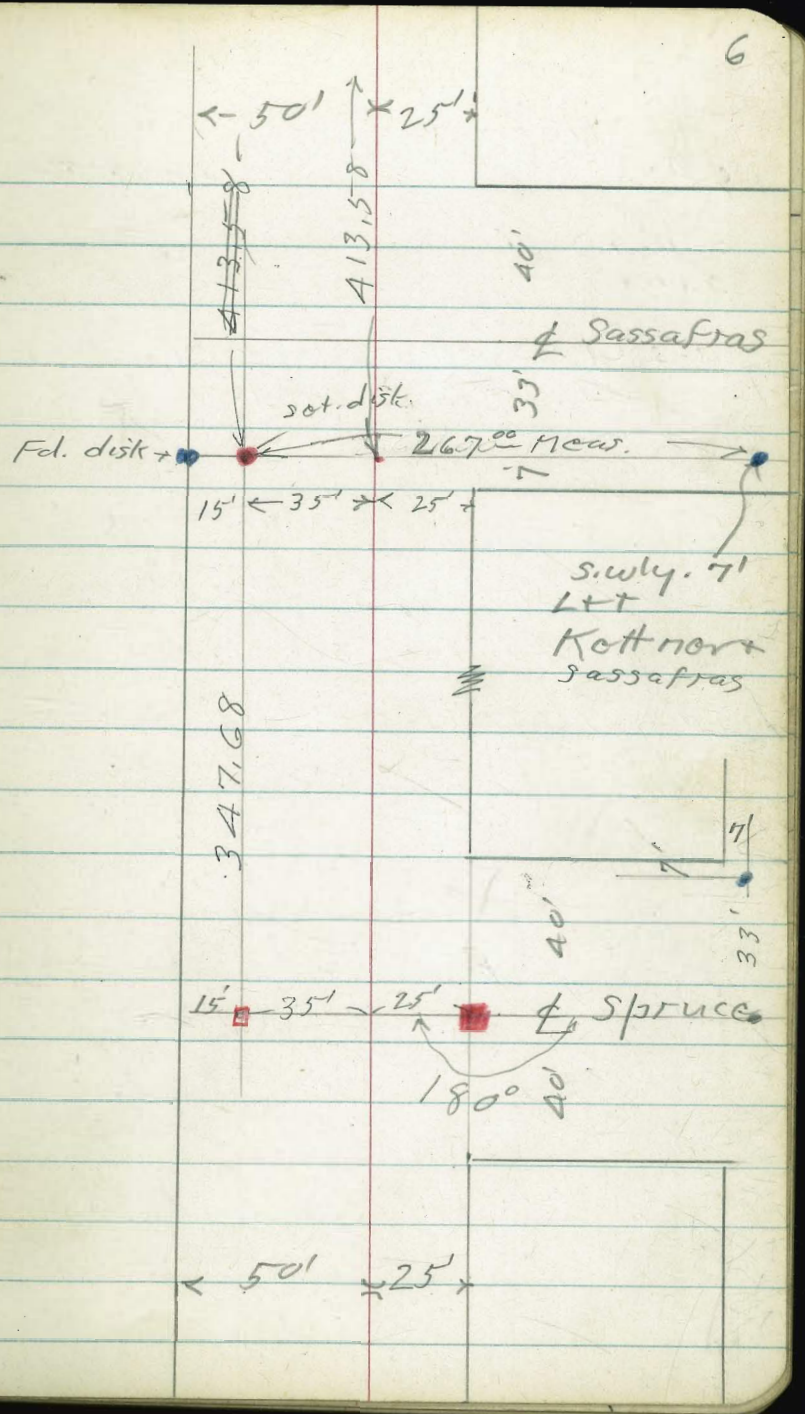
By Allen
R Sisson
C Powell

Same with Conc. Mon.
Fd. old ½" + disk - replaced
℄ Quince & Ely line California



Tie Points California St.
at. Spruce + at Sassafras

C.H.S. 4-14-54
Begg
Puller
Scholin



California St. Ties.

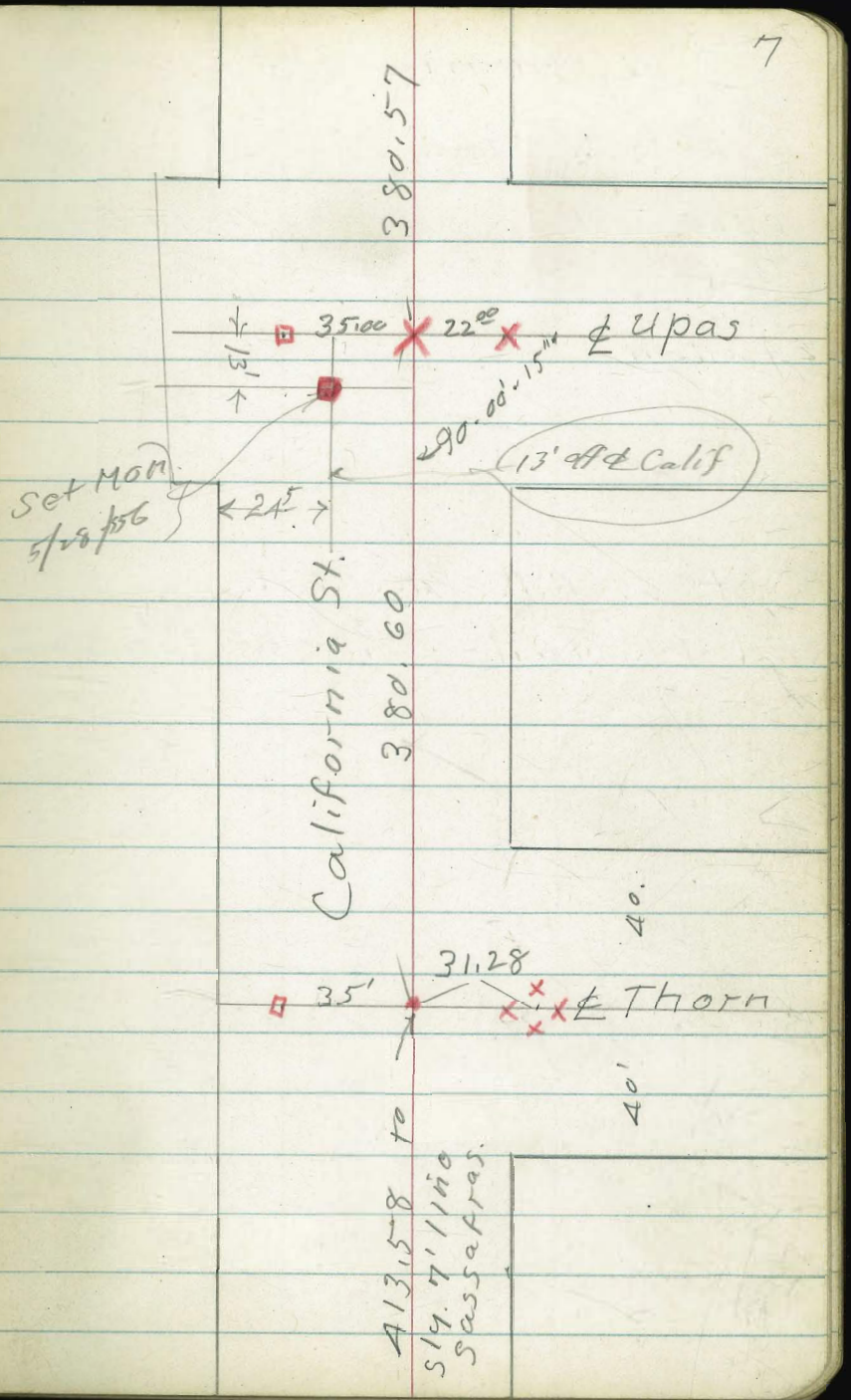
at Thorn + at Upas.

C.H.S.
Begg
Schelin
Pullen

4-14-54

cut-℄ cross on flange of rail.
" 22' R.P. cross on top of conc. vault.

Sassafras to Vine was apportioned as per tie sheet distances.

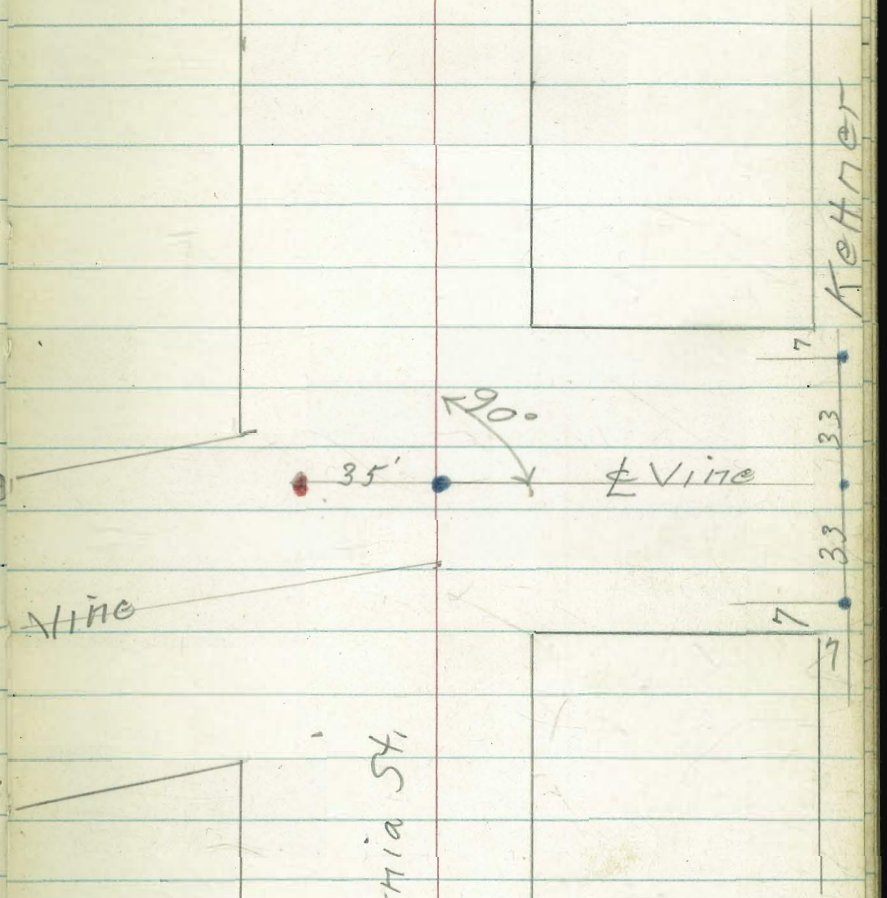


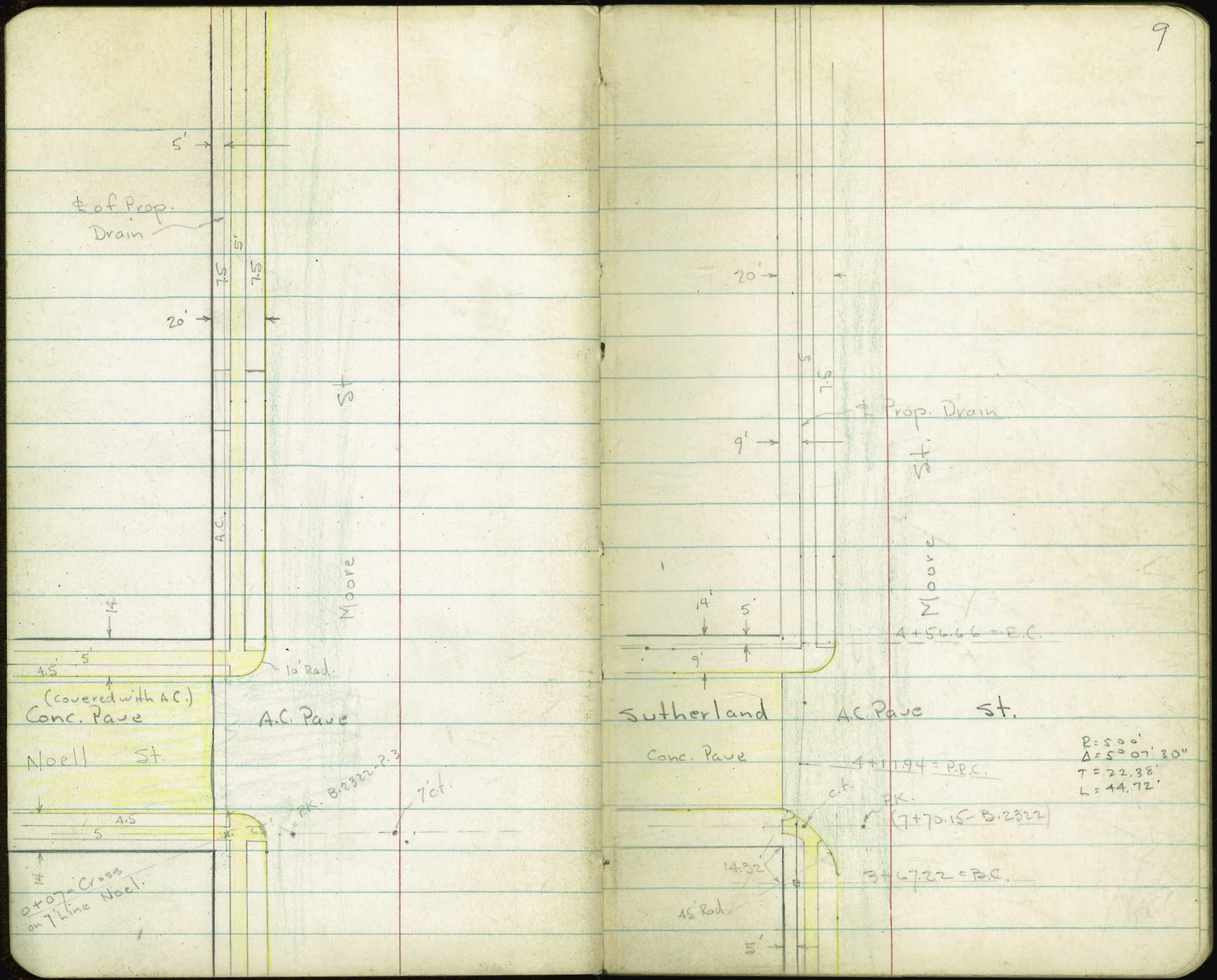
cut 4 crosses in M.H. Rim.

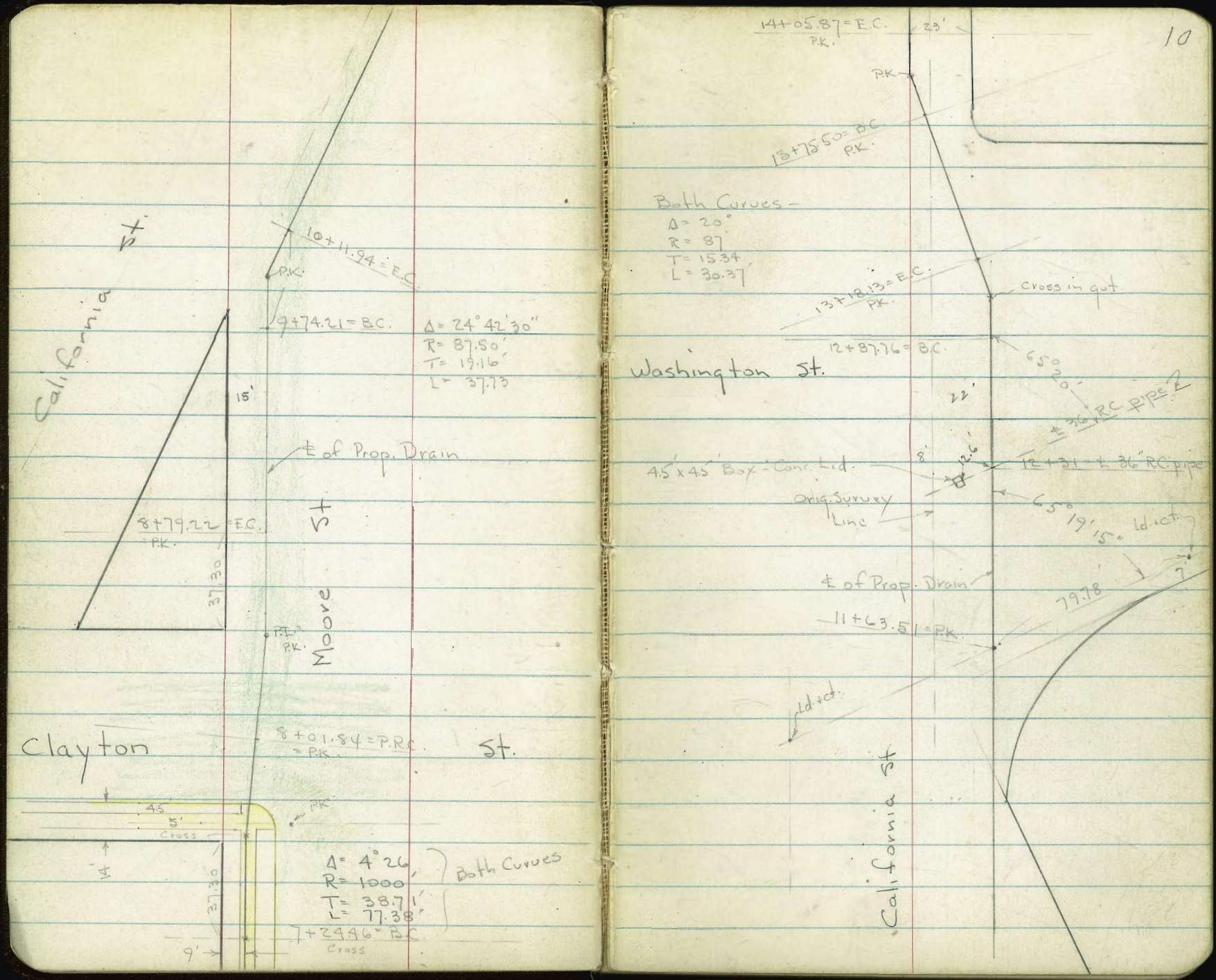
California St. Ties.
at Vine. St.

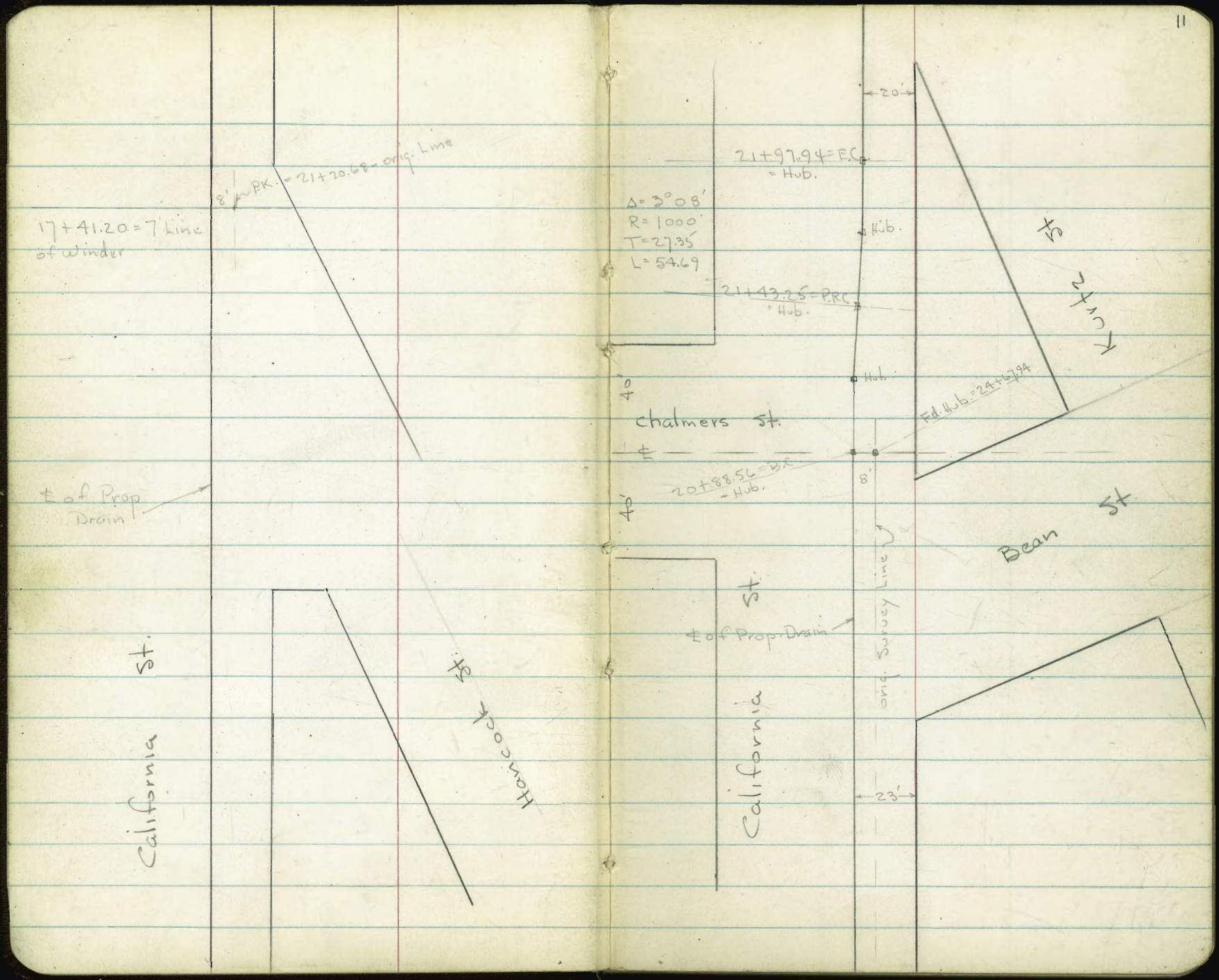
C.H.S. 4-1454
Bogg
Schelin
Pullen

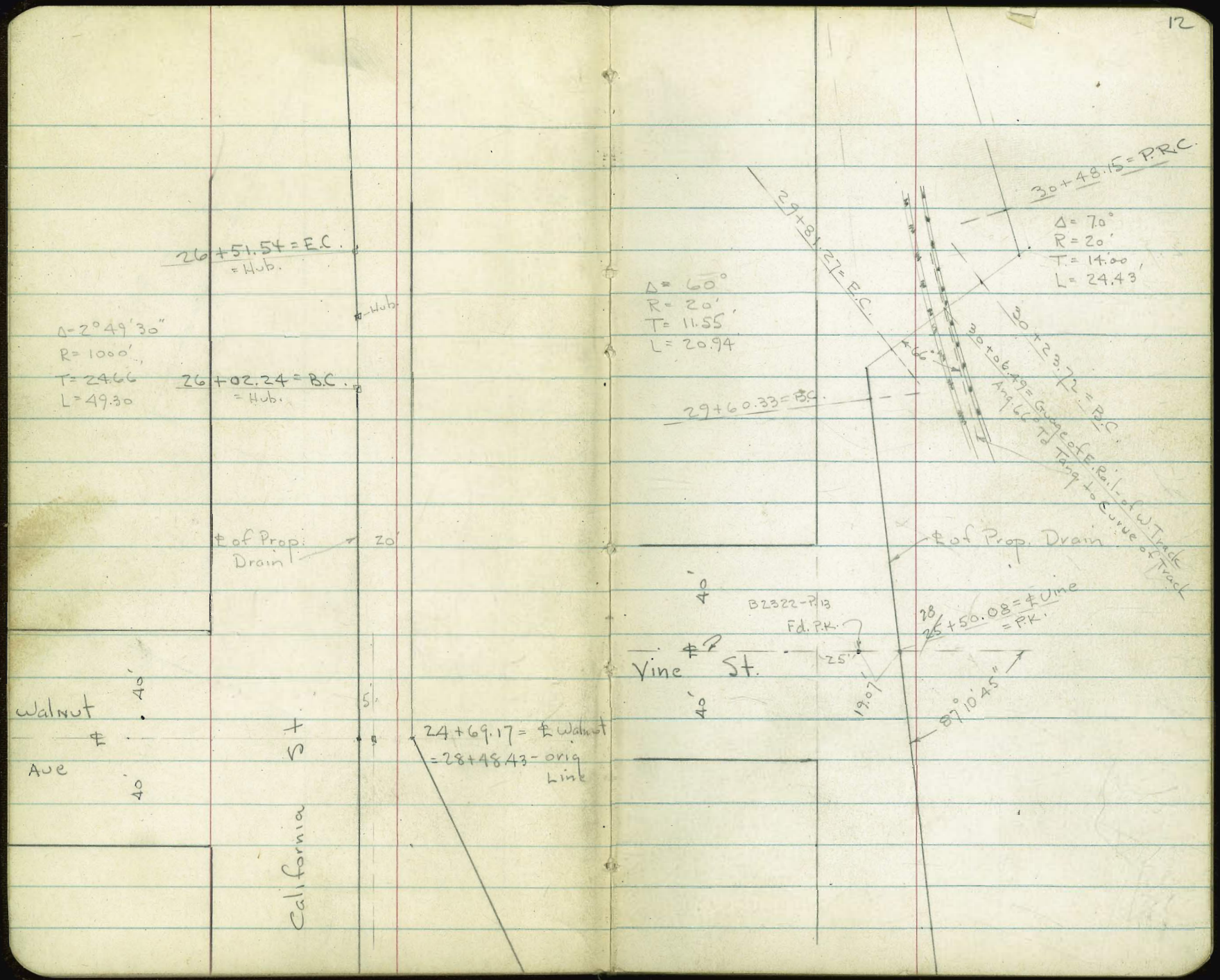
Set 35' R.P. - P.K. Nail.
Fd. P.K. Nail - checks Tie Sheet

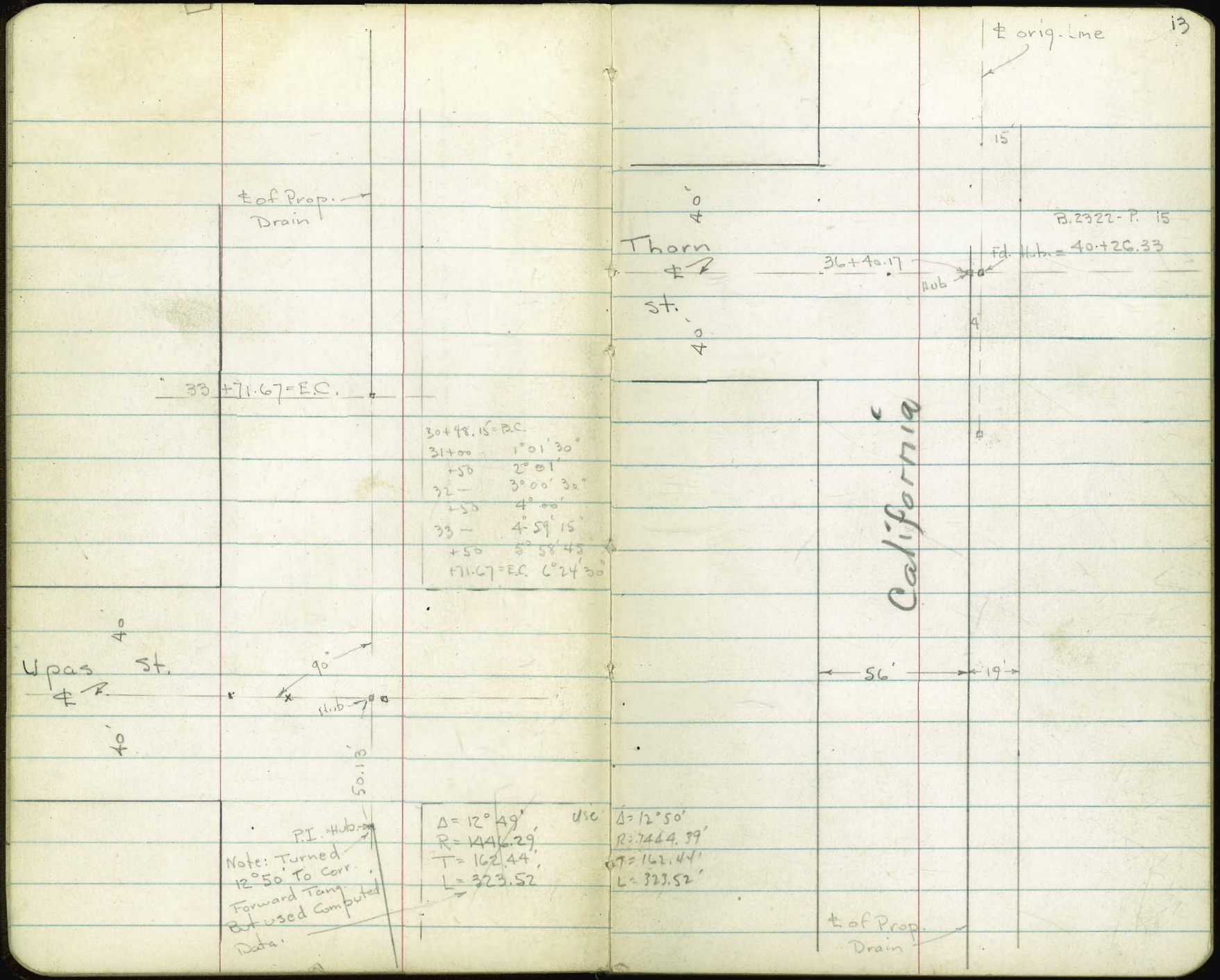



5'
℄ of Prop. Drain
5'
7.5
7.5
20'
A.C.
Moore
14'
4.5'
5'
10' Rad.
(covered with A.C.)
Conc. Pave
A.C. Pave
Noell St.
4.5
5
P.K. B.2322=2.3
7' ct.
14'
0+07 = Cross on ℄ Line Noell.
20'
5'
7.5
℄ Prop. Drain
9'
Moore
14'
5'
9'
4+56.66 = E.C.
Sutherland St.
A.C. Pave
Conc. Pave
4+11.94 = P.R.C.
c.t.
P.K. (7+70.15 - B.2322)
14.32'
3+67.22 = P.C.
45' Rad.
5'
R = 500'
Δ = 5° 07' 30"
T = 22.38'
L = 44.72'


14+05.87 = E.C.
P.K.
23'
P.K.
13+75.50 = B.C.
P.K.
Both Curves –
Δ = 20°
R = 87
T = 15.34
L = 30.37
13+18.13 = E.C.
P.K.
Cross in gut
12+87.76 = B.C.
Washington St.
65°
20'
22'
± 36" RC Pipe
8'
12.6'
4.5' x 4.5' Box - Conc. Lid.
12+31 ± 36" RC Pipe
Orig. Survey Line
65°
19'
15" Ld. Ct.
± of Prop. Drain
79.78'
11+63.51 = P.K.
Ld. Ct.
Calif. Ave. St.
10+11.94 = E.C.
P.K.
9+74.21 = B.C.
Δ = 24° 42' 30"
R = 87.50'
T = 19.16'
L = 37.73'
California St.
15'
± of Prop. Drain
8+79.22 = E.C.
P.K.
37.30'
Move St.
P.I.
P.K.
8+01.84 = P.R.C.
= P.K.
Clayton St.
45'
5'
Cross
P.K.
37.30'
9'
Δ = 4° 26'
R = 1000'
T = 38.71'
L = 77.38'
Both Curves
7+29.96 = B.C.
Cross


8' from PK. = 21+20.68 = orig. Line
17+41.20 = 7' Line of winder
℄ of Prop Drain
California St.
Hancock St.
Δ = 3°08'
R = 1000'
T = 27.35'
L = 54.69
21+97.94 = P.C. = Hub.
21+43.25 = P.R.C. = Hub.
20+88.56 = B.C. = Hub.
Hub.
20'
40'
40'
Chalmers St.
℄
Fd. Hub = 24+67.94
8'
℄ of Prop. Drain
orig. Survey Line
California St.
Bean St.
23'


26+51.54 = E.C.
= Hub.
Hub
Δ = 2°49'30"
R = 1000'
T = 24.66
L = 49.30
26+02.24 = B.C.
= Hub.
℄ of Prop. Drain
20'
Walnut
℄
Ave
40'
40'
5'
℄
St
California
24+69.17 = ℄ Walnut
= 28+48.43 - orig
Line
Δ = 60°
R = 20'
T = 11.55'
L = 20.94
29+81.27 = E.C.
29+60.33 = B.C.
30+48.15 = P.R.C.
Δ = 7.0°
R = 20'
T = 14.00'
L = 24.43'
30+23.72 = P.I.C.
30+06.49 = Grade of E. Rail of W. Track
Ang. 66° To Tang to Curve of Track
66°
℄ of Prop. Drain
B2322-P.13
Fd. P.K.
25'
Vine St.
40'
28
25+50.08 = ℄ Vine
= P.K.
19.07'
87°10'45"


℄ orig. Lme
15'
℄ of Prop. Drain
Thorn
℄
St.
B. 2322 - P. 15
Fd. Hub. = 40+26.33
36+40.17
Hub
4'
33 +71.67 = E.C.
30+48.15 = P.C.
31+00 1°01'30"
+50 2°01'
32 — 3°00'30"
+50 4°00'
33 — 4°59'15"
+50 5°58'45"
+71.67 = E.C. 6°24'30"
California
Upas St.
℄
90°
Hub
56'
19'
50.00'
P.I. Hub
Note: Turned 12°50' To Corr. Forward Tang But used Computed Data.
Δ = 12°49'
R = 1446.29'
T = 162.44'
L = 323.52'
Use
Δ = 12°50'
R = 1444.39'
T = 162.44'
L = 323.52'
℄ of Prop. Drain

Beg. Levels along ℄ of Prop. Drain
Moore - California - See sketch - P. 9-13

W.O. 21250 - 6-24-54 - 7.0.

		Lt.	℄	Rt.
2+00 - 13' Rt = ℄ of Lt. std.				
1+80 - 5' Lt. = end Bldg. - 2-4" Conc. Drains along end of walk		54.3 10 Top bank	44.8	44.42 2.5 = walk
1+79.5 = end Conc. -		44.22 5 By Bldg.	44.11	
- 5' Lt. = end fence + Beg. Bldg.				
1+49.6 = end A.C. + Beg. Conc. walk		44.23 5 = Conc. By Gr.	43.88 Conc.	43.72 2.5 = edge of walk
0+81 - Beg. A.C. Pave			43.00	42.99 2.5 = walk
0+80.5 - 12.7 Rt. = ℄ Light Std.				
0+79.5 - 5.2' Lt. = Beg. Cyclone Fence				
0+75.5 = walk			42.92	
0+70.5 = walk			42.84	
0+66 = cb.		42.36 g.t.	42.70 Top cb.	
0+40			42.77	
0+14 = cb. line		42.37 g.t.	42.72 Top	
0+09.5 = walk			42.81	42.80 2.5 = edge of walk
0+04.5 = walk			42.81	
0+00			43.0	
B.M. - N.W 7' c.t. Nail	42.52			

Actual Elev. shown.

5+00 -

4+61.8 - 9.2' Lt. = Beg. Bldg.

4+60 - 8.8' Rt. = ℄ Lt. std.

4+56.66 = E.C.

4+49.5 - 8.4' Lt. = ℄ P. pole # 3851

4+47.5 = cb. face

4+11.94 = P.R.C.

3+95.6 - 6.5' Lt. = E.C. of Ret.

3+94.8 - 3.2' Lt. = end 45' Rad.

3+88.6 = 5' Rt. = cb. face

3+79.4 - 12.9' Rt. = Beg. 45' Rad. Curve

3+71.2 = 15' Rt. = P.C. of Ret.

all ties from Tang. Produced (5' out from Prop)

odd Ret. Ties to Tang. Prod.

3+67.22 = B.C.

3+20.5 - 12.5' Rt. = ℄ Lt. std.

5" Iron + 12" Conc. from N.E.
+ 30" R.C. across st.
with 20"x20" Iron Lid - 30" Cor. Iron ahead

3+02 = 0.4 Lt. = ℄ 36" Long (To our E) x 28" wide Box.

2+50

Lt.	℄	Rt.
47.42	47.37	47.27
1.5		3.5
edge		edge
	47.15	
	on walk	
47.06		46.55
Top		gut.
	46.73	
	46.90	46.34
	Top	gut.
	46.70	46.25
	Top	gut.
	46.66	46.12
	Top	gut.
	46.62	46.01
	Top	gut.
	46.42	45.98
	15	
	Top	gut.
49.4	46.6	46.50
5		25 = walk
Top bank		
	45.66	41.94
	Top = S.	I-E of
	Rim	Box + pipes
49.4	45.1	
6		
Top		

7+00

6+86.5 - 8' Rt. = 14" Euc.

6+62 - 3.5' Rt. = end Dr.

6+50

6+37 - 3.5' Rt = Beg. Conc. Dr.

6+36 - 7.8' Rt. = ± 14" Euc.

6+09.5 - 1.5' Lt. = ± 2' Conc walk

6+08.5 - 9.2' Lt. = end Bldg.

6+00

5+90 - end Conc. Dr.

5+89.5 - 8.9' Rt. = ± Lt. std

5+86.5 - 1.5' Lt. = ± 3' Conc. walk

- 9.3' Lt. = Bldg.

5+65 - Beg. Conc. Dr. - Rt. of walk

5+63 - 1.5' Lt. = ± 2' Conc. walk

5+59.5 - 7.4' Rt = ± Tel. pole

5+57.5 - 9.2' Lt = end Bldg.

5+50

5+34.2 - 9.2' Lt. = Beg. Bldg. & end Both Drives

5+05.5 - 9.2' Lt. = end Bldg. - Beg. AC. Dr. on Lt. of walk & Conc. Dr. to Rt. of walk

Lt.	℄	Rt.
	48.12	48.07
	1.5	walk
	edge	
		47.97
		3.5
		edge
	47.91	
48.73		47.81
9.3	walk	1.5
	47.76	47.73
	1.5	
		47.67
		3.5
48.82		47.71
9.3	walk	1.5
48.77		47.69
9.3	walk	1.5
	47.58	

Cont. of P. 20

	Lt	℄	Rt.
10+30		53.92	
10+11.94 = E.C.		54.02	
9+90 - 14.5' Lt. = Nearest Pt. of Conc. curb Island	55.00 Top	54.49 14.5 9%	
9+74.21 = B.C.		53.10	
9+50	53.05 10	52.08	51.76 10
9+30	52.70 6	51.83	51.12 7
9+00	52.87 10	51.21	50.30 7
8+79.22 = E.C.	52.40 10	50.64	49.73 7
8+40		49.14	
8+27 - 27' Rt. = ℄ 6" Water gate Cap.			
8+29.5 - 12' Lt. = ℄ Lt. std. in 6' Diam Conc. Base	50.52 Top Conc	49.42 9% Pave	
8+01.84 = P.R.C.		48.41	
7+75.8 = cb. face - Reg. AC. Pave		48.10 Top	47.72 9%
7+39.5 = ℄ 2' Conc. walk To E. of Reg. walk			
7+24.46 = B.C.		48.16	
7+00.5 - 8.9' Rt. = ℄ Lt. Std.			

Levels around Return at SEly. Cor.
of Clayton & Moore

20' cb. on Moore & 14' cb. on Clayton

Beg 45' Sly from Prop. of Moore on Clayton cb.

45' S.	gut.	43.89
	Top	44.51
Prop. of Moore	gut.	47.92
	Top	48.57
+10' = P.C. of 10' Rad.	gut.	48.06
	Top	48.52
℄ of 10' Rad.	gut.	48.16
	Top	48.64
P.C. = 4 Nwly. from Prop. of Clayton	gut.	48.25
	Top	48.71
+4' = Ely. Line of Clayton	gut.	48.30
	Top	48.66
40' Ely of Ely. Line	gut.	49.38
	Top	49.80

		Lt.	℄	Rt.
12+87.76 = B.C				
12+88.0 = end	A.C. & Beg Conc gut.		48.99	
12+80.5 - end	Conc. & Beg. A.C.		48.81	
12+57.5 - end	A.C. & Beg. Conc.		48.49	
12+55.1 = edge	of Conc. gut. & Beg. A.C.		48.42	
12+53.8 = cb. face			48.91 Top	48.40 Gut
12+52.5 - 6.3'	Lt. = ℄ 2.5'x2.5' Conc. base - Signal			
12+31 = int. ℄	of 36" R.C. pipe - See P. 10 for ang.	42.42 I.E. of Box & pipes	51.12 12.6 = on Line	49.6 Top of Box - Near Side
12+00				
11+92 - 11.7' Rt. =	cb. face Island.	51.02 gut	51.53 16.8 Top cb.	50.3
11+81.4 = Island	cb. face Conc. gut. 1.3' wide from cb. face		50.07 gut.	50.56 Top
11+66.8 - 10' Lt. =	P.R.C. of island cb.			49.52 11.7 Top / 49.00 gut.
11+50			50.51	
11+30 - 6.8' Rt. =	cb.		51.02	50.58 6.8 gut. / 51.24 Top
11+00 - 3.3' Rt. =	cb.	52.42 10	51.95	51.81 3.3 gut. / 52.50 Top
10+82.5 - 5.4' Rt. =	cb.			52.35 5.4 gut. / 53.01 Top
10+65 - 10.8' Rt. =	cb.		53.09	52.81 10.8 gut. / 53.53 Top

Cont. from P. 18

	Lt.	℄	Rt.
17 +80 = Edge of A.C		42.85'	
17+66.4 - 10.1 Lt. = ℄ 3'x3' Clean out		43.34 40.96 10.1 Rim I.E.	
17+40		43.30	
17+08 - 14.5' Lt. = ℄ Sewer Mtl. 44.12 = Rim			
17+00		43.68	
16+50		44.04	
16+00		44.48	
15+50		45.59	
15+00		46.59	
14+05.87 = E.C.		48.40	
13+75.50 = B.C.		48.60	48.08 6.4 gut. 48.63 Top
13+70 - 5.4' Rt. = cb. face		48.13 5.4 gut	48.76 Top
13+55' - 8.3' Rt. = cb. face			48.06 8.3 gut 48.71 Top
13+39.1 = end Conc. + Beg. A.C		49.19	
13+16.3 = end A.C. + Beg. Conc		48.89	
13+03.9 = end gut. + Beg. A.C.		48.87	
13+02.6 = cb. face		49.43 Top	48.88 gut.
12+99.4 - 8' Lt. = ℄ Signal Post - 2'x2' base			
12+89.1 = cb. face		48.95 gut.	49.45 Top

25+50 = Top	25.9
25+43 = ℄ Pitch	25.7
25+35 = Top bank	27.6
25+26	26.1
25+00	26.2
24+50	26.5
24+00	26.5
23+50	27.0
23+00	27.6
22+50	28.9
21+97.94 = E.C.	30.1
21+43.25 = P.R.C.	32.2
20+88.56 = B.C. - 14.5' Lt. ℄ Sewer Lt. 36.03 = R.m.	34.5' = on Hub
20+40 = old oil Ridge	37.3
20+00	37.2
19+60	38.3
19+20	39.6
18+80	40.6
18+40	41.8
18+00	42.6

29+20 - 57' Rt. = ℄ Tel. pole

29+08.2 = Cross Guard Rail - 3' Rt. = end.

29+06.4 = edge of Walk

29+05.5 - 26.9' Lt. = ℄ outlet 24" R.C. pipe

28+98.1 = edge Conc. Walk

28+90.5 = edge A.C.

28+83 - 27.7' Lt. = ℄ 3.5'x2.5' Box Inlet ↓grate on 24" pipe

28+6.5'

28+42 = edge of A.C.

28+30 - 30.5' Lt. = ℄ 3.5'x2' Box Inlet ↓grate on 24" pipe

28+05.5 - 31.6' Lt. = ℄ Inlet of 24" R.C. pipe + 7' Conc. Headwall 6" wide

27+91

27+84 = ℄ Ditch

27+75

27+65'

27+00

26+60 - 11.4' Rt. = ℄ P. pole # 3572

26+51.54 E.C.

26+02.24 B.C.

Lt. ℄ Rt.

23.80

20.42
26.9 = I.E. of outlet.

23.81

23.49

20.64 I.E. of Box + Pipe

23.47
27.7 Top of grate

23.90

23.70

21.12 I.E. of Box + pipe

23.63
30.5 = Top of grate

24.7

21.28 I.E. of Pipe

24.85 = Top of
31.6 wall

26.2

21.8

25.5'

24.4

24.7

25.05 = on Hub.

25.45
on Hub.

	Lt.	℄	Rt.
33+00		21.4	
32+86 - 6.4' Rt. = ℄ P. pole # 3498			
32+50		21.5	
32+00		21.1	
31+50		20.8	
31+40 - 7.7' Rt. = ℄ Deadman			
31+16 - 9.5' Rt. = ℄ 24" Euc.			
31+13.5 - 6.6' Rt. = ℄ P. pole # 3516			
31+00 on edge of Fill		20.2	
30+48.15 = P.R.C.		19.3	
30+23.72 = P.C.		21.2	
30+11.7 = Wly. Rail		22.90	
30+06.5 = Ely. Rail		23.11	
29+96.6 = Wly. Rail		23.25	
29+91.2 = Ely. Rail		23.40	
29+81.27 = E.C.		22.7	
29+60.33 = B.C.	20.1 5 ℄ Ditch	23.9	
BM. = □ on Signal base 24.03			
29+52.5 - 5.7 Rt. - Nearest to Signal - R.R. Conc. Base ℄ 28 x 3.5'			5.7 = Top Conc.
29+35 -	20.3 13 = ℄ Ditch	22.8	

Lt. ℄ Rt.

39+66.31
check B.M. on E.C. - orig. Line 13.90 - 13.87

36 + 40.18 = ℄ Thorn

17.00

36 + 00

21.5 15.4
10
edge of fill

35 + 80

11.43 15.45 17.15 = Top of wall
I.E. of Inlet. Top of Grate 61.9

± 10.5' Conc. Headwall & Wingwalls - Conc. Apron 6 x 2

3.6
6'

Box - 4' Deep - all sides - Metal grates

35 + 80 - 61.9' Lt = ℄ of Inlet of 72" wide x 3.6 High Culvert - about 90° To Tracks

35 + 50 16.0

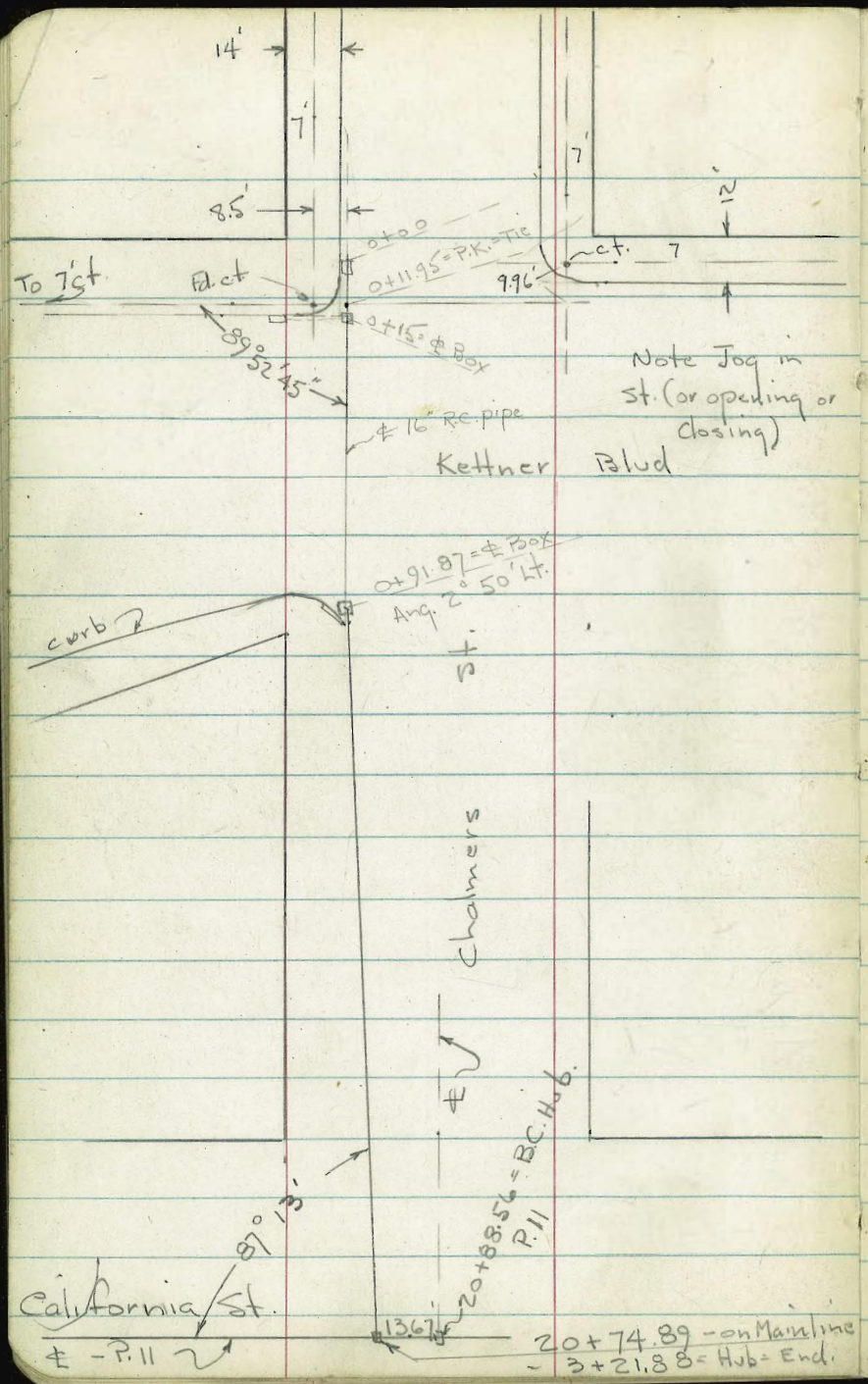
35 + 00 21.7 17.8
6
Top =
edge of Fill

34 + 50 18.2

34 + 00 19.9

33 + 71.67 = E.C 19.45 = on Hub = T.P

33 + 50 - on edge of Fill 20.1


14'
7'
8.5'
7'
N
0+00
0+11.95 = P.K. Tie
To 7'st.
Rd. ct
c.t. 7
9.96'
0+15 = ℄ Box
89° 52' 45"
Note Jog in st. (or opening or closing)
℄ 16" RC pipe
Kettner Blvd
0+91.87 = ℄ Box
Ang 2° 50' Lt.
curb
1st
Chalmers
℄
87° 13'
20+88.56 = BC Hub
P.11
California St.
℄ - P.11
136.7'
20+74.89 - on Mainline
- 3+21.88 = Hub = End.

Levels along ℄ of Prop. Drain in Chalmers St. - Kettner to California
See Sketch - P. 26 + 11

W.O. 21250 - 7-30-54 - 7.0.

	Lt.	℄	Rt.
12" to N. to ℄ of S.S inlet 0+91.87 = ℄ of 2x2 Box - Clean out - 16" E + W.	45.29 I.E. of ℄ Box	47.44 Top	45.58 I.E. of 12" = outlet.
0+90.7 - 5.7' Rt. = End of 5.5' opening - in Ret.			47.45 5.7 = gut. 48.37 Top cb.
0+70.		49.41	
0+55.		50.15	
0+30		50.43	
0.8 x 5' inlet + grate - 0.85 out from cb. 15' N. of ℄ of Box = ℄ inlet of 12" R.C. + Sly. of		49.80 Top grate	48.39 I.E. of Inlet 12" 49.74 gut. = Sly of inlet.
(Clean out) 16" To W. 0+15 = ℄ of Box - 2'x2' - 15" R.C. - E ← - 12" To N.	48.02 I.E. 15" To E outlet	48.12 I.E. 12" to N. outlet	50.15 = Top of Box 48.07 I.E. 16" To W. Inlet.
0+05.8 = Wly. of Inlet + ℄ of inlet of 15" Pipe		50.03	48.30 I.E. of Pipe
15" R.C. Pipe 0+00 = ℄ + Ely. of 1.8' x 5.8' inlet + grate to		50.20 ℄ of inlet	
Kettner. Check - S.E. B.P. Chalmers +	49.88	- 49.78 =	Book
B.M. = B.C. Hub. 20 +88.56 P. 22	34.65		

Actual Elev. shown.

	Lt.	℄	Rt
2+00			
1+86 – 4.4' Rt = ℄ Prop. Pole			
1+50			
1+46 – 6' Rt. – ℄ P. pole # 1906			
Water now flows thru old pipe & Barrels. – (ignore (can't tell where change occurs.)			
1+41.5 – 0.4 Rt. = ℄ of outlet of 16" Cor. Iron pipe			
1+35	41.6 (20)	41.3 (11)	42.2 — 43.9 (10)
1+26.5 = Top Rail	45.6 (20)	44.8 (11)	45.3 — 45.9 (10)
1+20.9 = Rail		43.86 I.E. of Pipe = 0.4 Rt.	
1+11.5 = W. Rail	46.5 (20)	45.9 (10)	46.9 — 47.1 (10)
old st. car Rails still in Pave			
1+06 = E. Rail ℄ edge of A.C. pave	47.43 9 = along Rail = edge of A.C.	47.40 Rail 47.53 Top rail 47.58 Rail	47.40 6 = end along Rail 9 = end of Rail
0+95.7 – 17' Rt. = end of cb. Ret.			47.30 — 48.17 1.7 = gut — Top - end cb.
℄ of inlet – 3.7' N. of ℄ of Box	45.88 I.E. of 12" = inlet	47.34 gut = Lip.	48.30 Top of cb

3+21.88 = 20+74.89 on Main Line

2+90

2+85 = about end of open Ditch

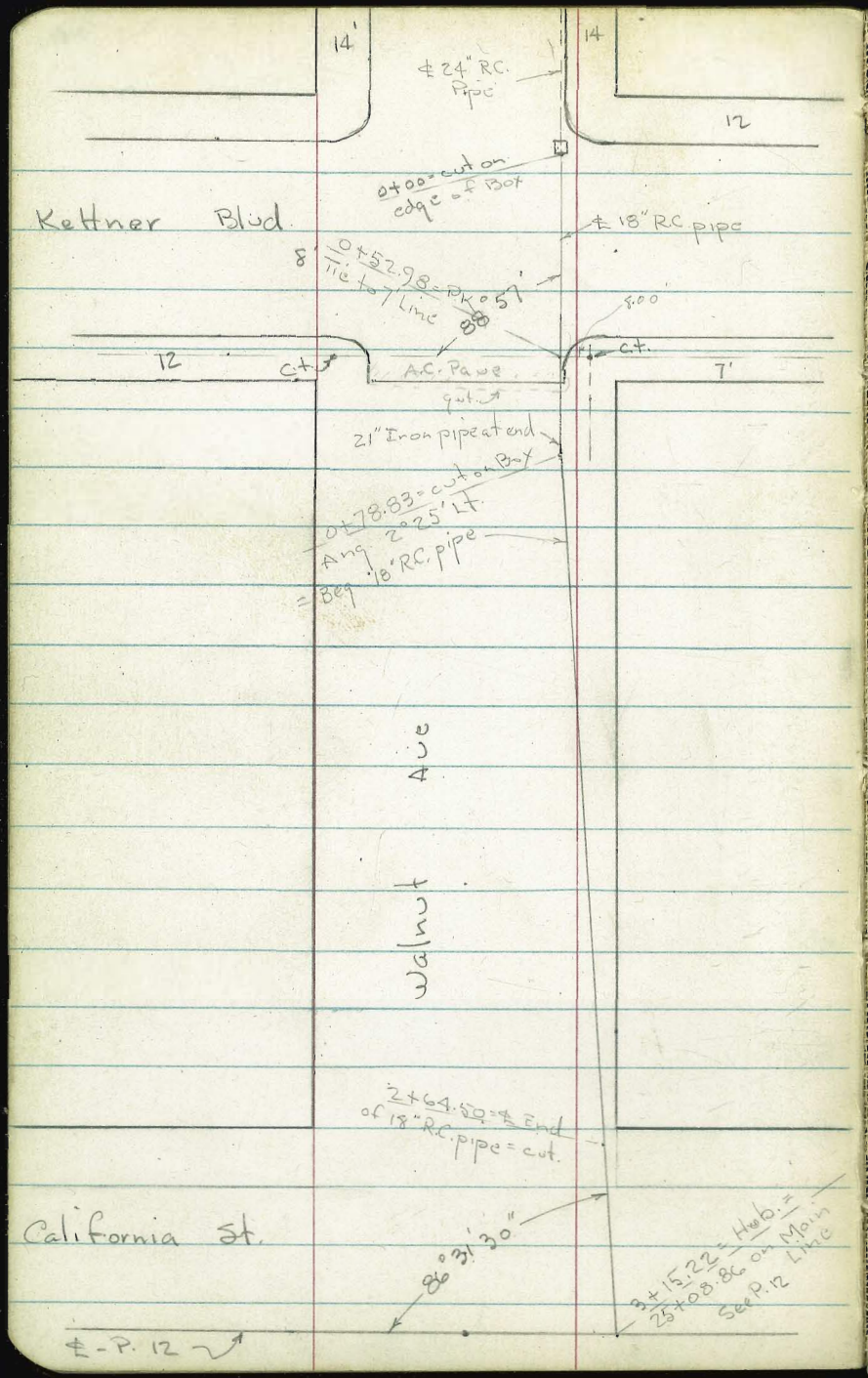
2+76 = Beg. Barrels

2+60

2+20 = ℄ of Drain Ditch

2+01 - 4.5' Rt. = ℄ Deadman

Lt.	℄	Rt
	34.96 on Hubs.	
36.7 20	36.6 8	37.3 38.5 15
36.9 20	36.7 10	37.4 3 34.7 ℄ Ditch 38 5 39.2 15
38.0 20	37.7 10	38.8 3 36.2 ℄ 38.8 4 40.6 10
40.3 20	39.8 12	41.3 3 39.2 ℄ 41.6 4 42.6 10


14'
14
± 24" R.C. Pipe
12
0+00 = cut on edge = ℄ Bot
Kettner Blvd.
± 18" R.C. pipe
8'
0+52.98 = PK 0.57' lic to ℄ Line
8.00
12
c.t.
A.C. Pave
c.t.
7'
cut
21" Iron pipe at end
0+78.83 = cut on Bot
Ang 2°25' Lt.
18" R.C. pipe
Beg
2+64.50 = ℄ End of 18" R.C. pipe = cut.
California St.
31' 30"
80
3+15.22 = Hub. ℄ 25+08.86 on Main Line
See P. 12
℄ - P. 12

Survey for Prop. Drain in Walnut Ave
Kettner to California - Conn. to Main Line
Line - sketch - P. 30 & 12

W.O. 21250 - 8-2-54 - 7.0.

2' x 2.5' Conc. Box - No Bottom.

0+76.8 = ℄ end of 21" steel pipe - Poor Cond. & Beg. Cant show change

0+69 - 2' Rt. = Wood Rail fence

	39.39	40.01	39.59	40.13	39.64	40.27	39.64
Beg. 30' S. of S.L.	gut 30' S.	Top	gut S.L. Kettner	Top	gut 1/4	Top	gut. 1/2

22' around - Prop to prop. - 4 - parts

Levels around S.W. Ret. - Walnut & Kettner.

0+65.3 - 0.8 Rt. = ℄ of inlet of 18" R.C. pipe

0+63 = ℄ Cross gut - goes to end of cb. on N.

A.C. gutter across st.

0+60 = W.L. Kettner = edge of Reg. A.C. & Beg. Light

0+48 = W. cb. Kettner - Prod.

0+22

0+00 = ℄ & Wly. of 2' x 3' Box (3' along Kettner) Inlet & grate

Check S.E. BP. - Walnut & Kettner 41.13 - 41.04 =

B.M. - S.W. Spike in Pole Walnut & Calif. 26.38

Lt. ℄ Rt.

34.52
I.E. of 21" = outlet.

40.33	39.69	40.23	39.59	40.02
Top	gut 3/4	Top	gut. end = W.L. Walnut.	Top

38.33
0.8 = I.E. of inlet

36.0	36.3	39.81	39.06	39.24	40.32
15	6	2 Top AC gut.		4 in gut.	25

40.02	39.59	39.47	40.05	40.50
Top = end cb.	0.8 gut.		10	25

40.23	39.64	40.01	40.49
Top cb.	11.5 = P.C. of gut. Ret.		10

41.08

37.78 I.E. of 24" To E. = 0-02 — 40.61 = Top grate — 37.72 I.E. of 18" To W.

Book

Actual Elev. Shown

Beg. Conc. slabs for Rip Rap - 3.5' Rt.

2+64.50 = ℄ of outlet of 18" R.C. pipe

2+60

2+36 - 7' Rt. = ℄ Deadman

2+33 - 5.5' Rt. = ℄ 16" Pepper

2+05

2+03.5 - 5' Rt. = ℄ P. pole # P 1951

1+83.4 - 3.3' Rt. = ℄ Deadman

1+82.4 = end Conc. slab.

1+70

1+52.3 = Beg. Conc. slab. for Dr. to lumberyd.

1+44.5 - 1.5' Rt. = end fence

1+20

0+78.83 = Ang. Pt. = Wly. of Box & Inlet of 18" R.C. pipe

0+77 - 0.2' Lt. = ℄ of outlet of 18" R.C.
Dumps into Box & 18" To w.

Lt.		℄		Rt.
28.4	28.9	27.44	28.5	29.54
10	2	I.E. of outlet.	3.5	4 Top Conc.
28.3	28.4	29.7	28.6	27.9
15	5		10	20
30.3	30.8	31.5		30.5'
15	6			22
32.35'		32.68	32.73	
13 Cor.		Conc.	1= Cor.	
32.71		33.13	33.11	32.6
13 edge		on Conc.	0.9 edge Conc.	20
33.03		33.96	34.00	
13 = on Conc.		Conc.	0.9 = Cor.	
34.2	34.9	36.3	35.4	35.5'
15	4		8	15
35.5'	35.9	36.98	34.68	38.5 38.3
15	5	on Top Box	I.E. of 18" To w.	2 15
		36.79		
		I.E. of outlet 18" pipe		

Lt. ℄ Rt.

3+15.22 = 25+08.86 on Main Line - See P. 22 → 26.1

2+90 27.2 (15) 26.5 (12 ± Ditch) 28.5 (7) 27.1 26.5 (18)

2+87 - 3.7 Lt. = end Conc. Rip Rap 28.75 (3.7 Conc.)

2+75 27.9 (15) 28.0 (8) 27.2 (4 ± Ditch.) 27.8 28.83 (1 Top Conc.) 28.0 (8) 27.2 (18 gut.)

Drain thru Convair from Lindberg Field to Pacific Hwy.

Oct. 14, 1954
W.O.# 21250

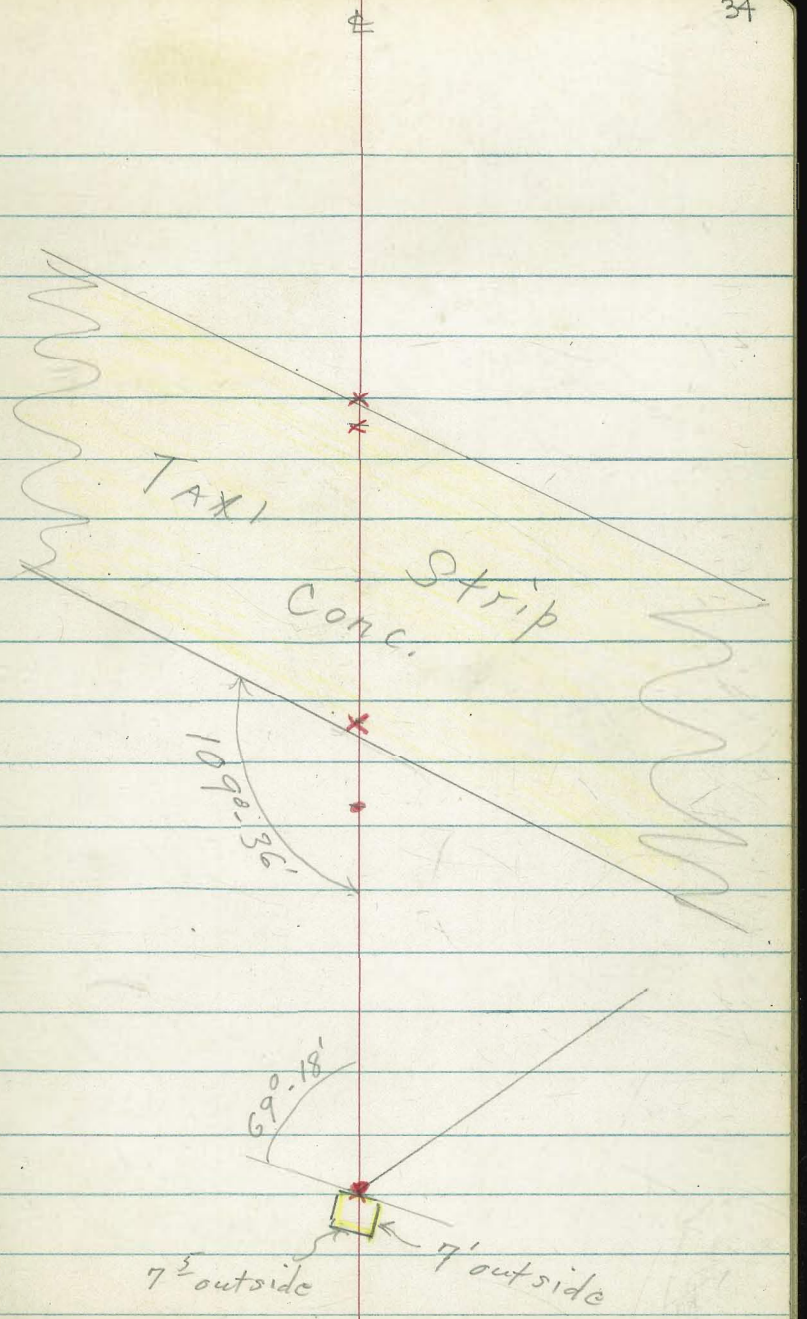
C.H.S.
Begg
Scholia
Pullen.

• denotes P.K. Nail
X " cross

2+03.29 = P.O.T. on Taxi strip.
2+00

1+23.91 = P.O.T. on taxi strip
1+00

0+00



5+00

4+17.45

4+10 = ℄ 10' wide runway for gates.

4+00

4 Rails
in concl

3+00

2+00

8+00

7+00

6+00

5+00

11+00

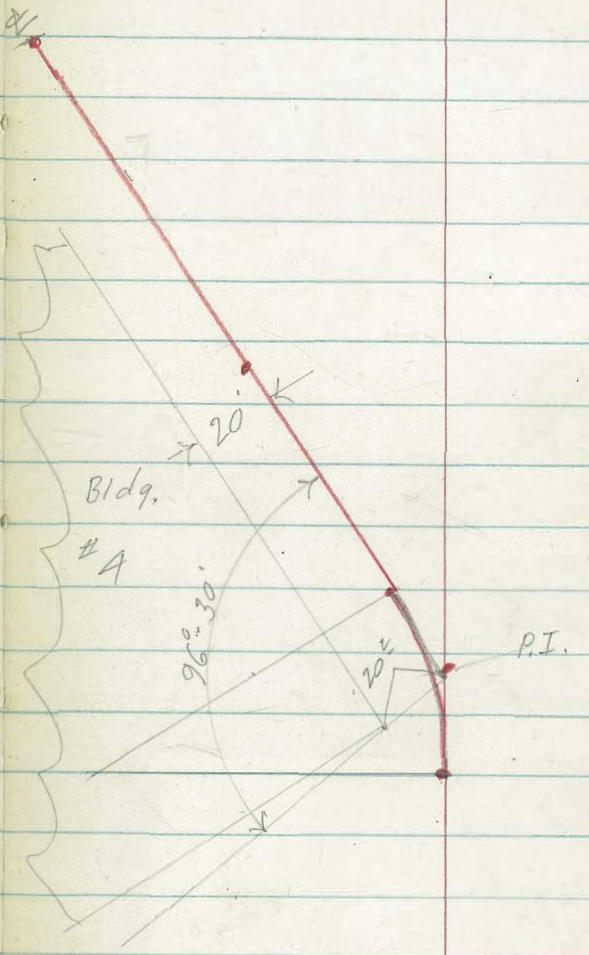
10+00

9+29.19 = E.C.

T=26.31 · L=51.19 – Ext.=3.77

8+78 = B.C. Lt. Δ = 32°-35'-15" R=90

8+00

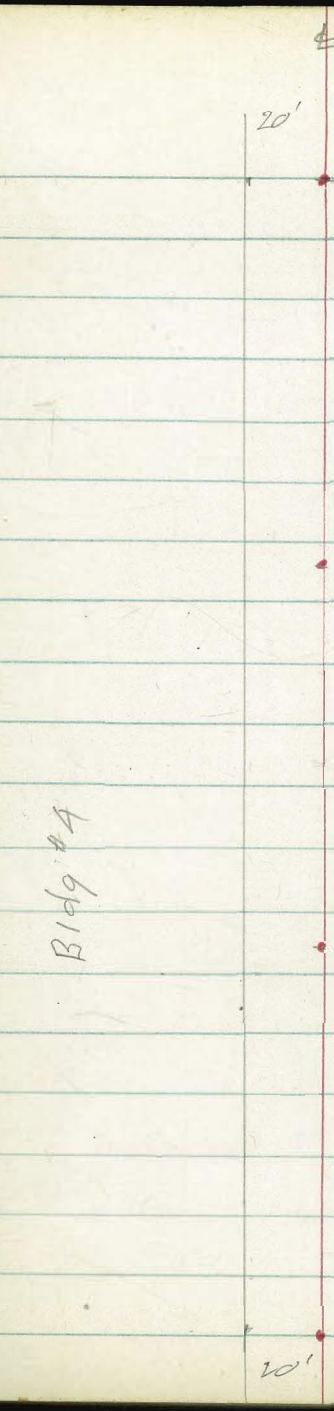


14+00

13+00

12+00

11+00



16+83.21 = E.C.

S.T. = 44.43 - L = 70.11 - Ext. = 18.24

16+13.10 = B.C. Rt. Δ = 89°-16' R = 45'

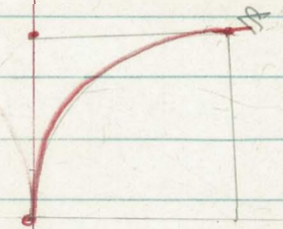
16+00

15+00

14+00

Bldg #1

20'



20

20+00

19+11. 106' Lt. = ~~T.D.~~ C.O. 11/8/54

19+00

18+91± = Intersect Sewer

~~18+89 ± — T.D.~~

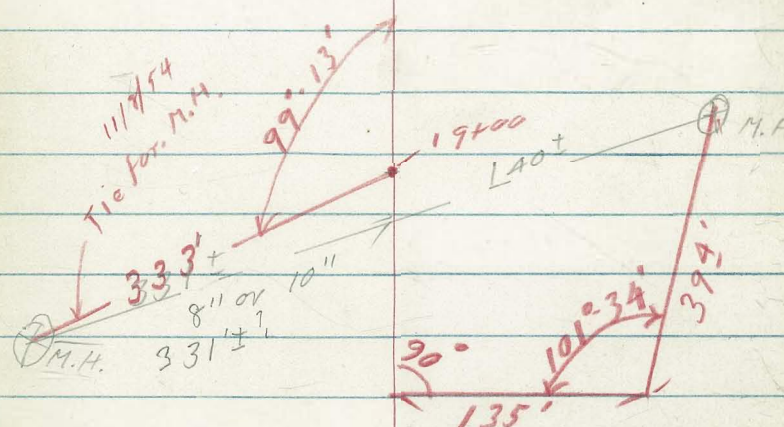
18+80 = Tie for Sewer M.H.
11/8/54

18+54 - 116' Rt. = ~~T.D.~~ C.O.

18+00

17+00

16+83.21 = E.C.



23+00

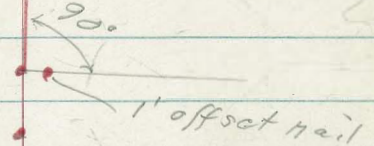
22+00

21+17.75 = Δ 1°-05' Rt.

21+00

20+00

℄



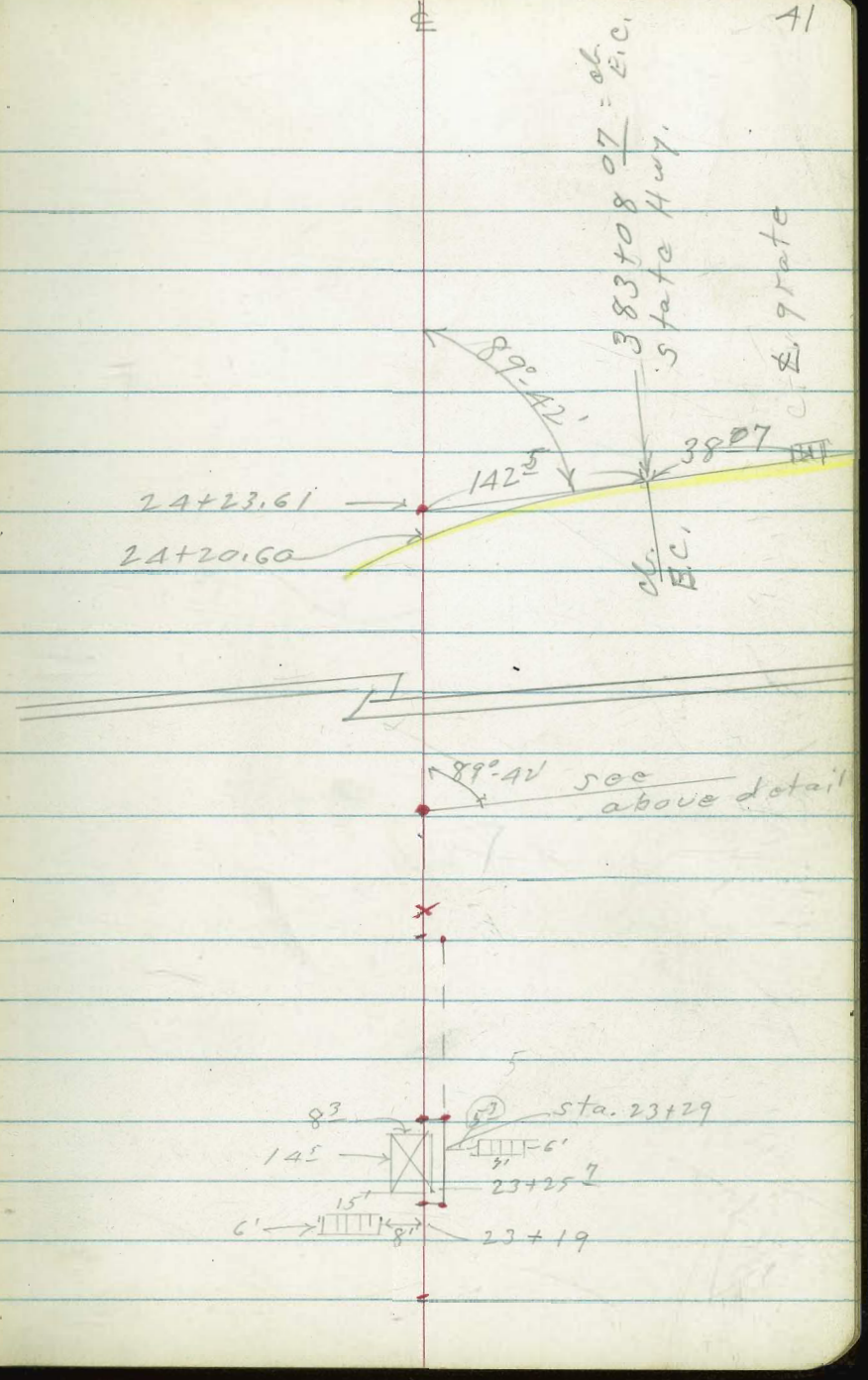
24+23.61 from below.

24+23.61 = Tie line – see above
24+20.60 = intersect Ch. line
24+00 = X. in walk.
23+95.49 = P.O.T. also = p.o.t. on 1' offset line.

23+46.55 = End 1' offset line

23+24.72 = Start 1' offset line

23+00



Levels. Drain Thru Conveir sketch P34

℄

-4.55

15.27

-3.70

14.42

10.72

0+07 = I.E. Box.

0-07.5 = I.E. 42" pipe

0+00 = ℄ outside of box.

B.M.#3	5.05	10.72	5.80	5.67	X in Taxi strip Sta. 4+17.45 page 35
T.P.	4.23	11.47	6.12	7.24	
T.P	5.20	13.36	5.08	8.16	
T.P.	5.15	13.24	5.30	8.09	
T.P.	5.37	13.39	5.51	8.02	
T.P.	5.16	13.53	5.28	8.37	
B.M.#2	4.93	13.65	7.60	8.72	X in walk 24+00 Page 41.
B.M.#1	2.45	16.32	-	13.87	½ 39+66.31 F.B. 2332 page 15

℄

5.06

2+55 5.66

5.71

2+03.6 + Start A.C. Pave. = End Conc. Taxi strip 5.01

5.72

2+00 X on Conc. 5.00

Conc. Taxi strip

5.70

1+23.8 = End A.C. + start 5.02

5.44

1+00 5.28

= start A.C. Pave.

4.16

0+00 = Nail (℄ Box) 6.56

10.72

5+87
5+00 5.72

11.59

T.P. 5.92 11.59 5.05 5.67

5.67
4+17 45 = x P.O.T. 5.05

5.64
parking yard.
4+16 = start Conc. Paved Airplane 5.08

5.62
gates
4+10 = ℄ 10' wide run way for 5.10
4+04 6 ℄ and A.C.

5.57
4+00 5.15

5.15
3+00 5.57

10.72

T.P. ↓	5,45	13.33	3.71	7.88	7.88
8+00					3.71
					7.21
7+50					4.38
					7.14
7+00					4.45
					7.15
6+89: end Conc. + start A.C.					4.44
(looks like check this plugged yard drop.)					
6+33	10^{2} Rt. = Ctr. 1½ x 1½ steel plate				
					6.51
6+00					5.08
5+69	15^{5}' Lt. = sprinkler connection box				
5+63	19' Lt. = Air line valve box				
					11.59

T.P. ℄ 11+00	5.20	13.37	5.16	8.17
10+20 = Cross patch in Pave.				8.17
10+00				5.16
9+88 = cross patch in Pave				8.36
9+70 12' Rt. = line of Bldg				4.97
9+36 = Cross patch in Pave.				
9+29.19 = E.C. 10.5 Lt. = sprinkler line				8.20
9+21 = Cross patch in pave.				5.13
9+03.6 = Mid Curve				8.22
8+83 = Cross sprinkler line				5.11.
8+78.00 = B.C. (Page 37)				8.21
				5.12
8+20				7.73
				5.60
				13.33

15+44 5 27' Rt. = yard drop.

15+16 = Cross patch in Pavo.

T.P. 5.40 13.51 5.26 8.11

15+00 10' Rt. = Face of Bldg. (paint crib)

14+00

13+72 = cross patch in Pavo.

13+00

12+71 5 = Cross patch in Pavo.

12+00

11+97 - 9 5 Rt. = yard drop.

7.38 -0.12

6.13 13.63

27 27

grate I E

13.51

8.11

5.26

7.95

5.42

8.16

5.21

8.20

5.17

7.64 4.74

5.73 8.63

9 5 9 5

Grate I. E.

13.37

T.P. 5.96 14.08 5.39 8.12

17+00

16+83 21 = E.C. 11½ Lt. 13½ Rt. } Line of Nearest Bldgs.

(check yard plot.)

also = tan'ly. Cor. Bldg. #7

16+68 – 11'± Rt. = end Fence

3'± Rt. = E.C. of Fence.

16+54 = Cross patch in pave.

12' Rt. = line of Fence.

16+48 17 = Mid Curve.

16+43 = Cross patch in pave.

16+30 = B.C. Rt. in fence (4'± Rt.)

16+13 10 = B. C. Rt.

16+03 – 4 5 Rt. = start 3' high pipe fence.

16+00

15+92 – 2 7 Lt. = Near edge of 8'X7' Elec. Vault.

8.13
5.38

7.56
5.95

8.26
5.25

8.09
5.42

8.00
5.51

0.3 2.3
13.2 11.2
Bottom of duct. Top of duct

13.51

2 - 4"

18+57 8" = 2nd rail of R.R. track

18+54 - 116' Rt. = Y.D.

18+53 = 1st rail of R.R. track

18+26. 14' Rt. = yard drop.

18+15 44° Rt.

18+02 - 8" Rt. = Elec. vault

18+00

(Air line? - check yard plot.)

17+99 - 6° Lt. = small valve box.

8.66
5.42

Grate EL. = +7.70 I.E. Elev. = −0.73

8.67
5.41

7.30 1.8
6.78 12.3
14" 14"
grate I.E. Box

3.6 5.2
10.5 8.9
44° 44°
Bottom of duct. Top of duct.

7.99 1.8 3.1
6.09 12.3 11.0
8" Bottom of duct Top of duct.
top.

8.05
6.03

14.08

19+64 - 53' Lt. = Elec. vault.

19+75

19+50

19+19 - 55' Lt. = yard drop.

T.P. 5.51 14.02 5.57 8.51

19+11 - 106' Lt. = Y.D.

19+00

see sketch

18+91± = intersect sewer line

18+84 - 16± Rt. = start Bldg. #10

5.12 6.62

8.90 7.40

53 53

Bottom of duct. Top of duct

8.87

5.15

8.52

5.50

0.94 8.24

13.08 5.78

55 55

I.E. Box 9 Parts

5

14.02

EL. = -1.75 EL. = 8.75

I.E. Grate

Elev.

8.51

5.57

2.38 8.89

11.70 5.19

331± 331±

I.E Rim

7.96 0.16

6.12 13.92

140± 140±

Rim I.E.

14.08

6.0 8.1✓

22+03 25' Lt = yard drop. 7.6 5.48
25 25
I.E. Box. grate

(sprinkler line?)

22+00 - 11[3] Rt. = ℄ patch in Pave. 8.44 5.16

21+48 = Cross patch in Pave.
also = cross Elec. ducts.
Elec. Vault.

21+31[3] 3[2] Rt. = ℄ outside of 7'×10' 5.1 3.9 8.5 9.7 13.60 3[5] Top of duct. 3[5] Bottom of duct.

T.R 5.19 13.60 5.61 8.41

8.41 5.61

21+17[76] = Δ 1°05' Rt.

8.40 5.62

21+00

20+94[5] 18[7] Rt = start Bldg. #1

8.8✓ 8.27 5.20 8.75 14 I.E. pipe 14.02

20+00 14[5] Rt. = sprinkler Valve

guard Headquarters

23+89 $4\frac{3}{}$' Lt. ℄ steps to Headquarters

23+77 $4\frac{2}{}$ Lt. ℄ steps to guard

Ped. overpass.

23+41 8' Lt. ⊥ S.Wly Cor.

(see sketch p-41)

23+29 - $5\frac{3}{}$ Rt. ⊥ guard rails

$14\frac{5}{} \times 8\frac{3}{}$ guard house

23+25$\frac{7}{}$ - $0\frac{5}{}$ Rt. ⊥ S.Wly Cor.

23+19 - { See page 41 Checking entrants 8' Lt. ⊥ guard rails for

T.P. 5.20 14.13 4.67 8.93

23+00

22+98 } cross patch in Pave.

22+79 }

9.18 9.22

4.95 4.91

8

14.13

8.97

4.68

13.60

8.72 8.22 7.58 8.00

5.02 5.52 6.16 5.74

75 75 14 25 14 25

ol. G ol. E.C.

#381 alarm.

19 3 Rt. = 1 5 Back of Ol. = Fire

section along q. curb.

24+20 60 = S.wly. ol. line Pacific Hwy

8.34 8.46 8.09 7.93 8.09 8.40 7.84

5.40 5.28 5.65 5.81 5.65 5.34 5.90

75 A 2 A 2 Ol. + drive 8 8 7 5

G ol. G G ol. G

8.61 8.57 8.56

5.13 5.17 5.18

5 5

24+13

24+05 = Cross patch in Pave.

8.76

24+00

A.98

13.74

T.P. A.98 13.74 5.37 8.76

= end A.C. + Start Conc.

23+96 = Cross fence.

8.80

5.33

(outside of court)

System Vault.

4.1

23+91 - 5 4 Rt. = ℄ sprinkler

9.4

9.

IE pipe

14.13

check to B.M.		1.81	13.89	(13.87)	B.M. #1 - Page 42
T.P.	6.22	15.70	4.26	9.48	

2.26

11.48

180 57

I.E. Box.

	6.76	7.80
	6.98	5.94
	180 57	180 57
	C.	C.

(Δ 89° 42' Rt. - See page 41)

24+23 61 } 180 59 Rt. = Ctr. 10' ab. inlet

8.18	7.58	8.00	
5.56	6.16	5.74	
	142 5	142 5	
	C	C. B.C.	

13.74

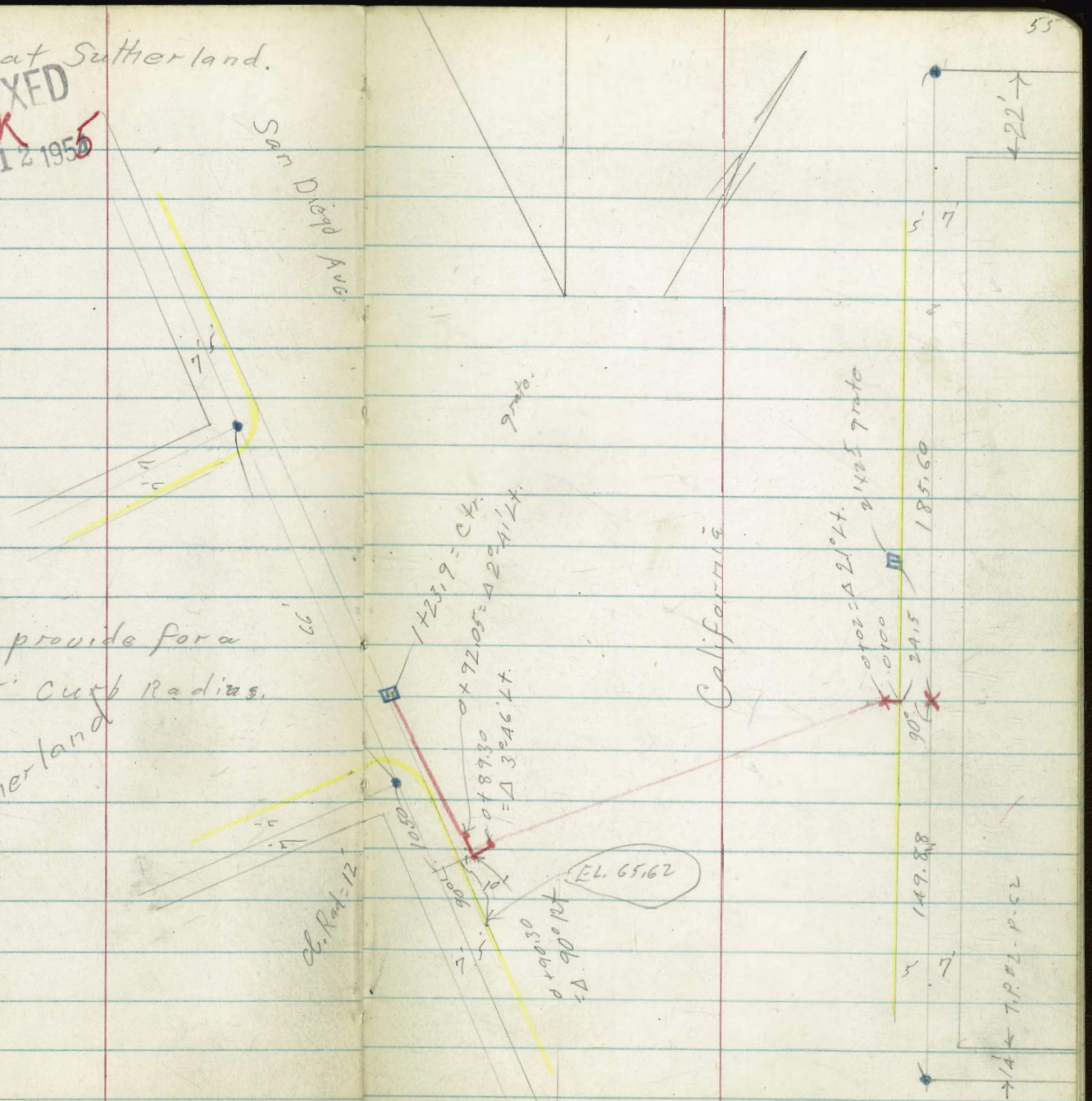
Drain, California at Sutherland.

6-23-55
C.H.S.
Begg
Schelin
Flora.

T.P. Book # 2 - Page 62

Yellow = Existing Curb.

Curb Inlet set to provide for a possible future 15' Curb Radius on Sly. Return.



B.M. = N.E. (N'ly.) B.P. Sutherland and La Jolla (San Diego) Ave. El = 67.19

0+65 18' Rt. = Ctr. M.H. = apprx E San Diego Ave

0+39

0+28

0+03 = l.p. of 3' wide conc. gutter

0+02 Δ 21° Lt. = inside of wall of C.I.

0+00 in gutter

0+00 Top of Cb.

0-00.5 = Top of ~~cb.~~ on walk

66.03 60.47 18 I.E.

65.65

66.24

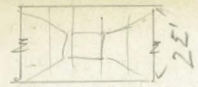
66.35

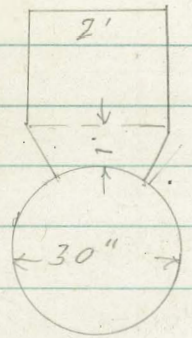
66.40 66.59 24.5 25 x 2' grate 63.62 25.5 I.E. culvert 2' culvert

66.07 10 66.26 66.51 6 s'ly. edge drive

66.89 10' 67.04 67.21 6 s'ly. edge drive to Metal.

67.24





Detail of drop at 1+23^{9}

1+23^{9} = Existing

59.63
B5.46 ~~56.96~~
grate I.E 21" culvert.

0+98-0^{75} Lt. = B.C. of ch. Rot.

65.74 65.27 65.28
0 75 0 75
06 G

0+92^{05} = Δ 2°-41' Lt. = inside of wall of box

See Sketch for Elev. ch. to S.E.

65.26

0+90^{2} = Δ 90° Rt

65.72 65.20 65.25
1' = ch. 1' = G.
90° to Fwd. tang.

0+89^{30} = Δ 3°-46' Lt. = inside of wall of box.

65.31

0+80

65.80

35+80 – 61.9 Lt. = ℄ inlet

72" wide – 3.6' High

+ 10.5' Conc. Headwall

+ wing walls. – Conc. apron

6'x2' Box – 4' deep – Metal Grates.

3+15

2+64.50 = end pipe

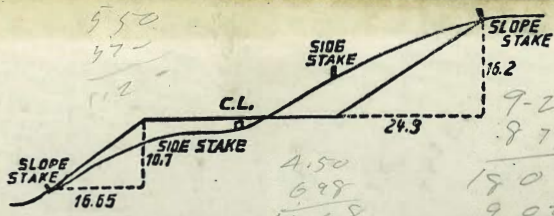
25+08.86

86° 31' 30" N.E

3+15.22 = Hub.

8.43 boat.

97



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1½ TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	0
1	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	1
2	3.00	3.15	3.30	3.45	3.60	3.75	3.90	4.05	4.20	4.35	2
3	4.50	4.65	4.80	4.95	5.10	5.25	5.40	5.55	5.70	5.85	3
4	6.00	6.15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35	4
5	7.50	7.65	7.80	7.95	8.10	8.25	8.40	8.55	8.70	8.85	5
6	9.00	9.15	9.30	9.45	9.60	9.75	9.90	10.05	10.20	10.35	6
7	10.50	10.65	10.80	10.95	11.10	11.25	11.40	11.55	11.70	11.85	7
8	12.00	12.15	12.30	12.45	12.60	12.75	12.90	13.05	13.20	13.35	8
9	13.50	13.65	13.80	13.95	14.10	14.25	14.40	14.55	14.70	14.85	9
10	15.00	15.15	15.30	15.45	15.60	15.75	15.90	16.05	16.20	16.35	10
11	16.50	16.65	16.80	16.95	17.10	17.25	17.40	17.55	17.70	17.85	11
12	18.00	18.15	18.30	18.45	18.60	18.75	18.90	19.05	19.20	19.35	12
13	19.50	19.65	19.80	19.95	20.10	20.25	20.40	20.55	20.70	20.85	13
14	21.00	21.15	21.30	21.45	21.60	21.75	21.90	22.05	22.20	22.35	14
15	22.50	22.65	22.80	22.95	23.10	23.25	23.40	23.55	23.70	23.85	15
16	24.00	24.15	24.30	24.45	24.60	24.75	24.90	25.05	25.20	25.35	16
17	25.50	25.65	25.80	25.95	26.10	26.25	26.40	26.55	26.70	26.85	17
18	27.00	27.15	27.30	27.45	27.60	27.75	27.90	28.05	28.20	28.35	18
19	28.50	28.65	28.80	28.95	29.10	29.25	29.40	29.55	29.70	29.85	19
20	30.00	30.15	30.30	30.45	30.60	30.75	30.90	31.05	31.20	31.35	20
21	31.50	31.65	31.80	31.95	32.10	32.25	32.40	32.55	32.70	32.85	21
22	33.00	33.15	33.30	33.45	33.60	33.75	33.90	34.05	34.20	34.35	22
23	34.50	34.65	34.80	34.95	35.10	35.25	35.40	35.55	35.70	35.85	23
24	36.00	36.15	36.30	36.45	36.60	36.75	36.90	37.05	37.20	37.35	24
25	37.50	37.65	37.80	37.95	38.10	38.25	38.40	38.55	38.70	38.85	25
26	39.00	39.15	39.30	39.45	39.60	39.75	39.90	40.05	40.20	40.35	26
27	40.50	40.65	40.80	40.95	41.10	41.25	41.40	41.55	41.70	41.85	27
28	42.00	42.15	42.30	42.45	42.60	42.75	42.90	43.05	43.20	43.35	28
29	43.50	43.65	43.80	43.95	44.10	44.25	44.40	44.55	44.70	44.85	29
30	45.00	45.15	45.30	45.45	45.60	45.75	45.90	46.05	46.20	46.35	30
31	46.50	46.65	46.80	46.95	47.10	47.25	47.40	47.55	47.70	47.85	31
32	48.00	48.15	48.30	48.45	48.60	48.75	48.90	49.05	49.20	49.35	32
33	49.50	49.65	49.80	49.95	50.10	50.25	50.40	50.55	50.70	50.85	33
34	51.00	51.15	51.30	51.45	51.60	51.75	51.90	52.05	52.20	52.35	34
35	52.50	52.65	52.80	52.95	53.10	53.25	53.40	53.55	53.70	53.85	35
36	54.00	54.15	54.30	54.45	54.60	54.75	54.90	55.05	55.20	55.35	36
37	55.50	55.65	55.80	55.95	56.10	56.25	56.40	56.55	56.70	56.85	37
38	57.00	57.15	57.30	57.45	57.60	57.75	57.90	58.05	58.20	58.35	38
39	58.50	58.65	58.80	58.95	59.10	59.25	59.40	59.55	59.70	59.85	39
40	60.00	60.15	60.30	60.45	60.60	60.75	60.90	61.05	61.20	61.35	40
41	61.50	61.65	61.80	61.95	62.10	62.25	62.40	62.55	62.70	62.85	41
42	63.00	63.15	63.30	63.45	63.60	63.75	63.90	64.05	64.20	64.35	42
43	64.50	64.65	64.80	64.95	65.10	65.25	65.40	65.55	65.70	65.85	43
44	66.00	66.15	66.30	66.45	66.60	66.75	66.90	67.05	67.20	67.35	44
45	67.50	67.65	67.80	67.95	68.10	68.25	68.40	68.55	68.70	68.85	45
46	69.00	69.15	69.30	69.45	69.60	69.75	69.90	70.05	70.20	70.35	46
47	70.50	70.65	70.80	70.95	71.10	71.20	71.40	71.55	71.70	71.85	47
48	72.00	72.15	72.30	72.45	72.60	72.75	72.90	73.05	73.20	73.35	48
49	73.50	73.65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85	49
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35	50

THE NATIONAL BLANK BOOK COMPANY
HOLYOKE MASSACHUSETTS
NEW YORK CHICAGO BOSTON SAN FRANCISCO