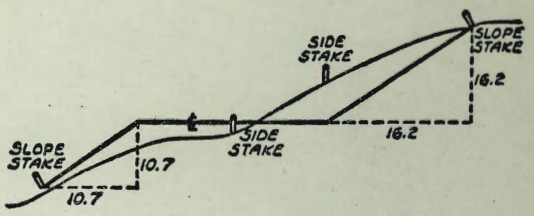
2326

STORM DRAINS

TRANSIT BOOK



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

Storm Drain Survey Belleview ST 1-3

California ST Drain 3-12

Change in California ST Drain 12-16

additional Ties California ST Drain Near Pacific Hiway & Laurel 17

also Tie to 0+00 Convair Drain 17

Between Pacific Hiway & Harbor Dr

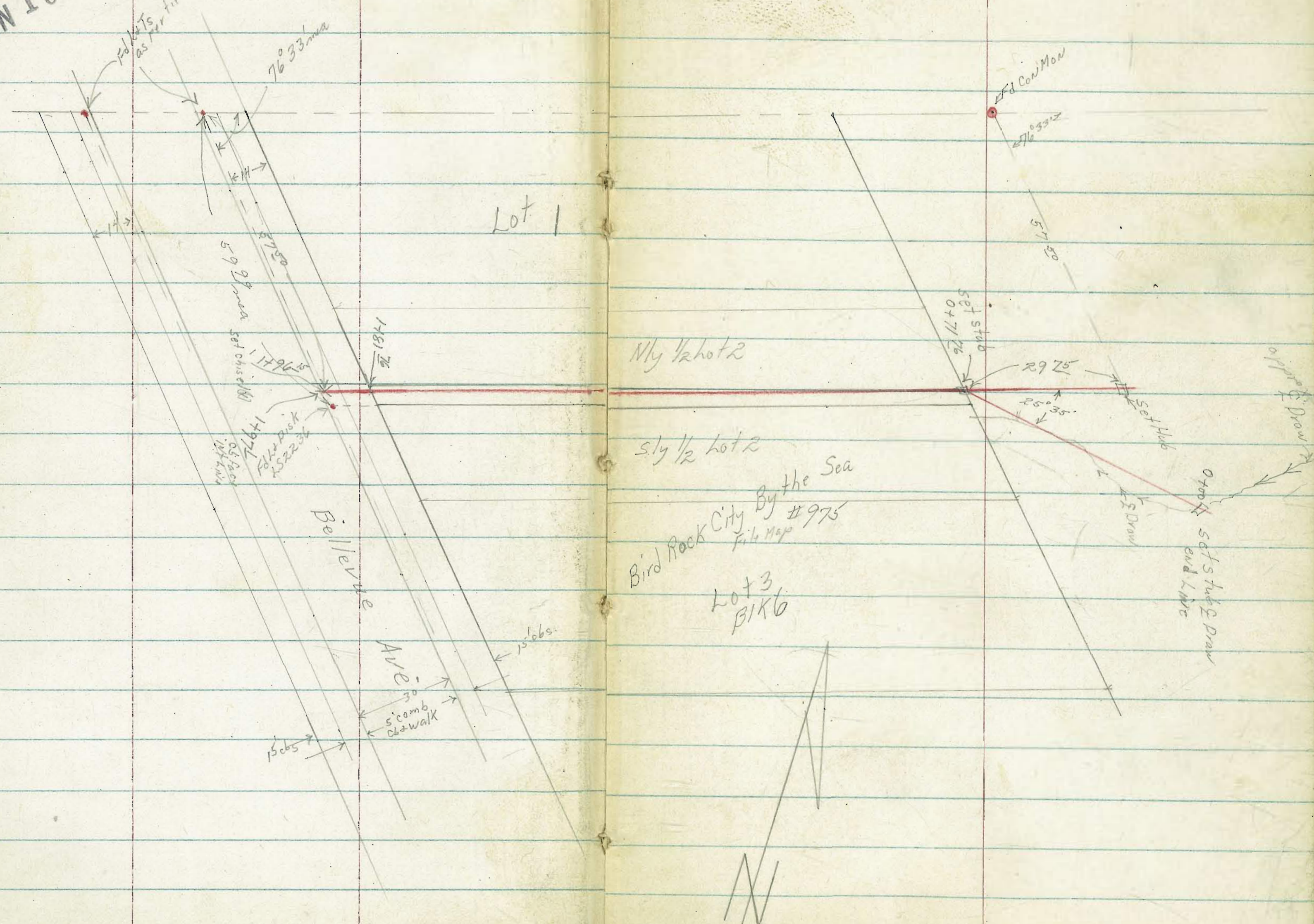
Change in California ST Drain on Laurel ST 18

D. Smith
J. Rorer
R. Taylor
B. Fish

Storm Drain Survey Belleview St

Lot 1 & Nly ½ Lot 2 Blk 6
Bird Rock City By the Sea #975

W.O.# 21255
6/15/54



Station		Lt = Sly	℄	Rt = Nly
0+78	4^{5} Lt Nly end 8" con Blockwall under const.			
$0+71^{76}$	∠ Lt 25°35' on split	$11^{2}/15$ (173.4), $12^{6}/10$ (172.0), $12^{6}/7$ (172.0)	10^{59} on Stub (173.27)	$7^{3}/10$ (177.3)
0+68	2^{5} Lt ℄ 8" P Pole # A5761			
0+60		$10^{4}/14$ (174.2), $11^{6}/8$ (173.0)	9^{5} (175.1)	$6^{2}/10$ (178.4)
0+43		$7^{9}/16$ (176.7), $8^{1}/8$ (176.5), $9^{1}/3$ (175.5)	10^{0} (174.6)	$8^{9}/4$ (175.7), $6^{1}/9$ (178.5)
0+25		$6^{2}/22$ (178.7), $6^{7}/14$ (177.9), $8^{0}/13$ (176.6), $8^{0}/11$ (176.6), $6^{5}/6$ (178.1)	5^{6} (179.0)	$4^{3}/9$ (180.3), $2^{0}/16$ (182.6)
0+00	℄ Draw easterly end Line	$1^{3}/20$ (183.4), $1^{9}/11$ (182.7), $3^{5}/6$ (181.1)	3^{25} on Stub (181.31)	$2^{4}/8$ (182.2), $1^{6}/14$ (183.0)

TP_3	12^{95}	⊼ 184^{56} ✓	0^{66}	171^{61} ✓
TP_2	12^{30}	172^{27} ✓	0^{21}	159^{97} ✓
TP_1	13^{28}	160^{18} ✓	0^{32}	146^{90} ✓
BM	12^{10}	147^{22} ✓		135^{12} SEBP Bird Rock & Bellevue

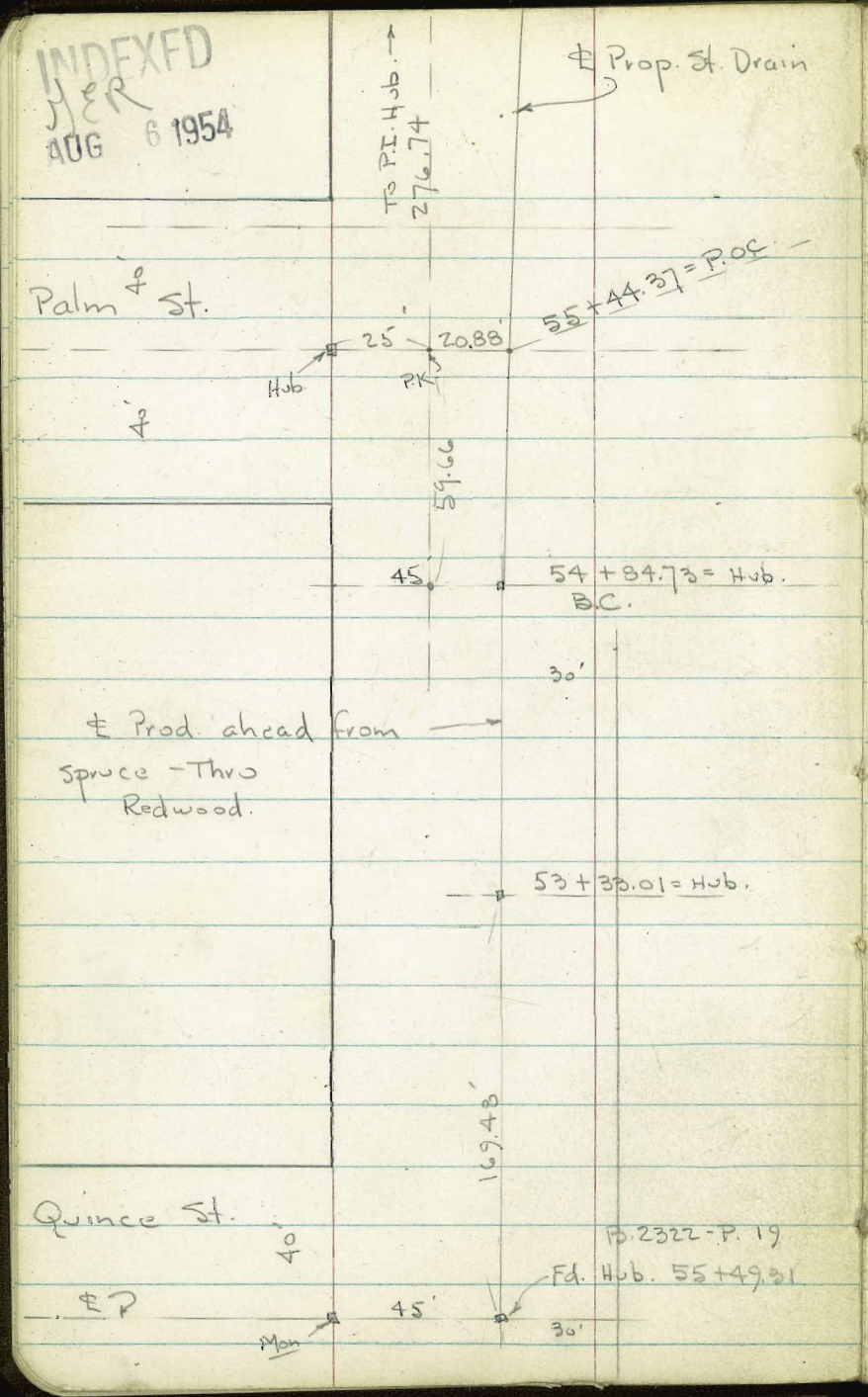
Station		Lt = Sly	℄	Rt = Nly
		$6^{8}/20$ (154.2), $8^{8}/25$ (152.2)	9^{0} (152.0)	$8^{6}/20$ (152.4)
$1+81^{26}$	int. taken along Line of Ely Prop Bellevue Ave			
1+67		$2^{1}/10$ (158.9), $2^{7}/25$ (158.3)	3^{4} (157.6)	$3^{5}/10$ (157.5)
TP_5	2^{12} ⊼ 161^{03} ✓			13^{30} 158^{91} ✓
1+50		$9^{8}/10$ (162.4), $10^{5}/3$ (161.7), $13^{5}/2$ (158.7)	13^{9} (158.3)	$13^{7}/10$ (158.5)
1+25		$5^{1}/10$ (167.1), $5^{0}/25$ (167.2)	12^{6} (159.6)	$13^{5}/2$ (158.7), $13^{5}/10$ (158.7)
0+98		$3^{2}/10$ (169.0), $3^{3}/7$ (168.9), $2^{6}/4$ (169.6), $5^{3}/2$ (166.9)	4^{6} (167.6)	$11^{7}/2$ (160.5), $13^{3}/6$ (158.9), $13^{5}/10$ (158.7)
0+95		$3^{1}/10$ (169.1), $3^{1}/4$ (169.1), $2^{1}/3$ (170.1)	2^{1} (170.1)	$2^{4}/10$ (169.8)
TP_4	0^{87} ⊼ 172^{21} ✓			13^{22} 171^{34} ✓

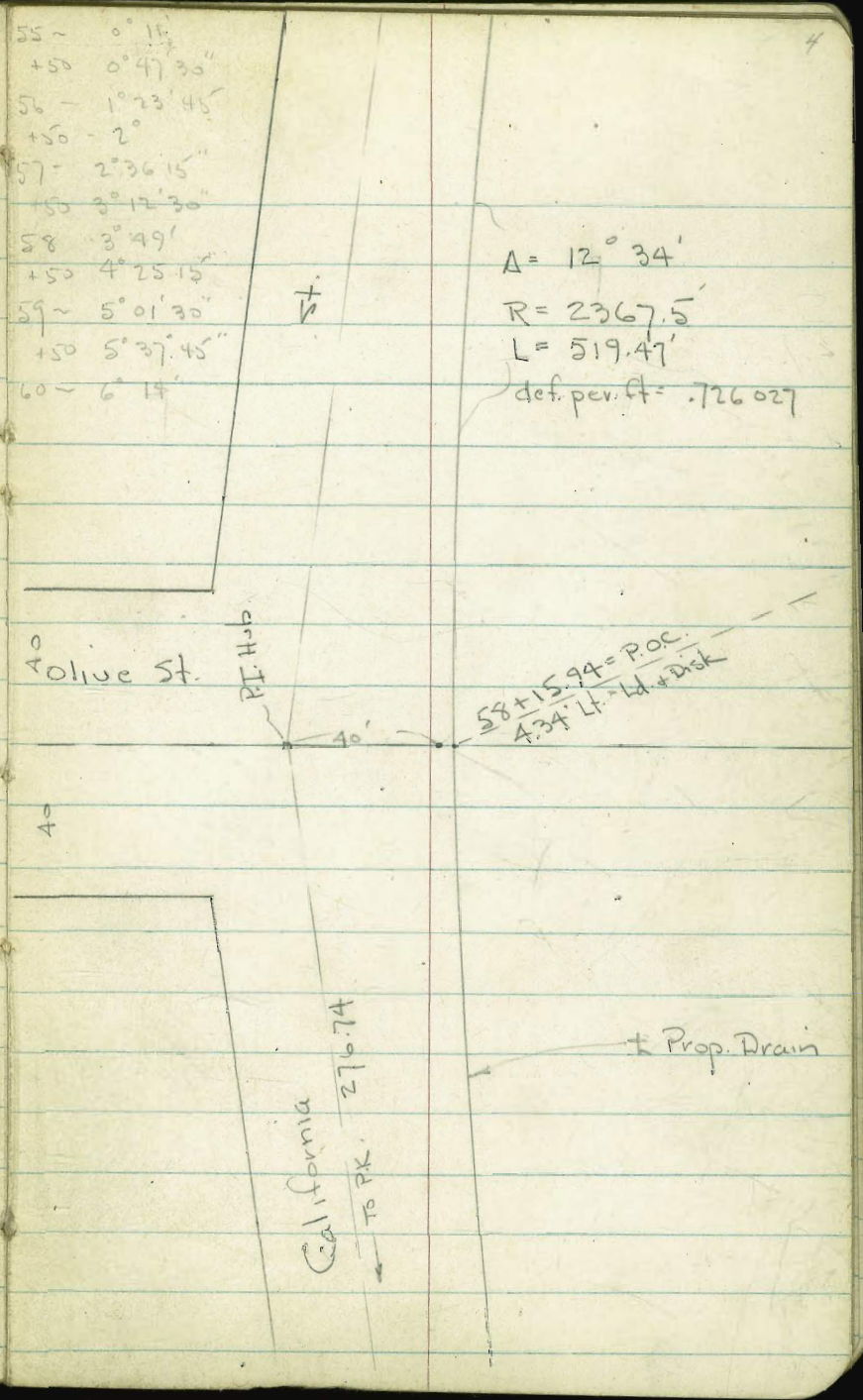
					135^{12}
BM start pg 2			9^{11}	135^{11}	
TP_7	0^{44}	144^{22}	10^{04}	143^{78}	
1+97' Ely cb Bellevue Ave	taken along line of				
1+92 Ely edge sidewalk	taken along line of				
TP_6	5^{42}	$\pi 153^{82}$	12^{63}	148^{40}	top Fire Hyd. Ely side Bellevue Pl. Line

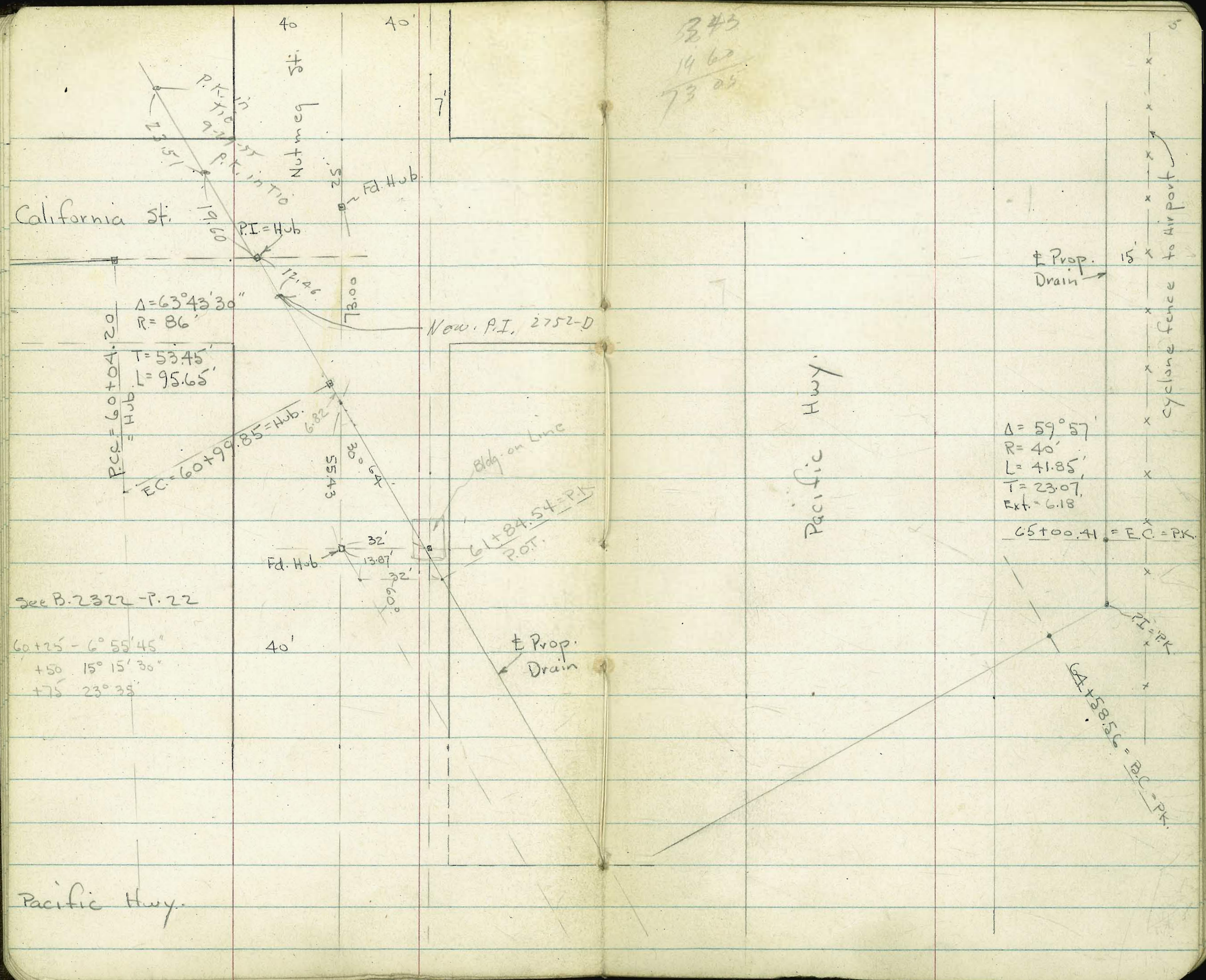
Lt-Sly | ℄ | Rt-Nly

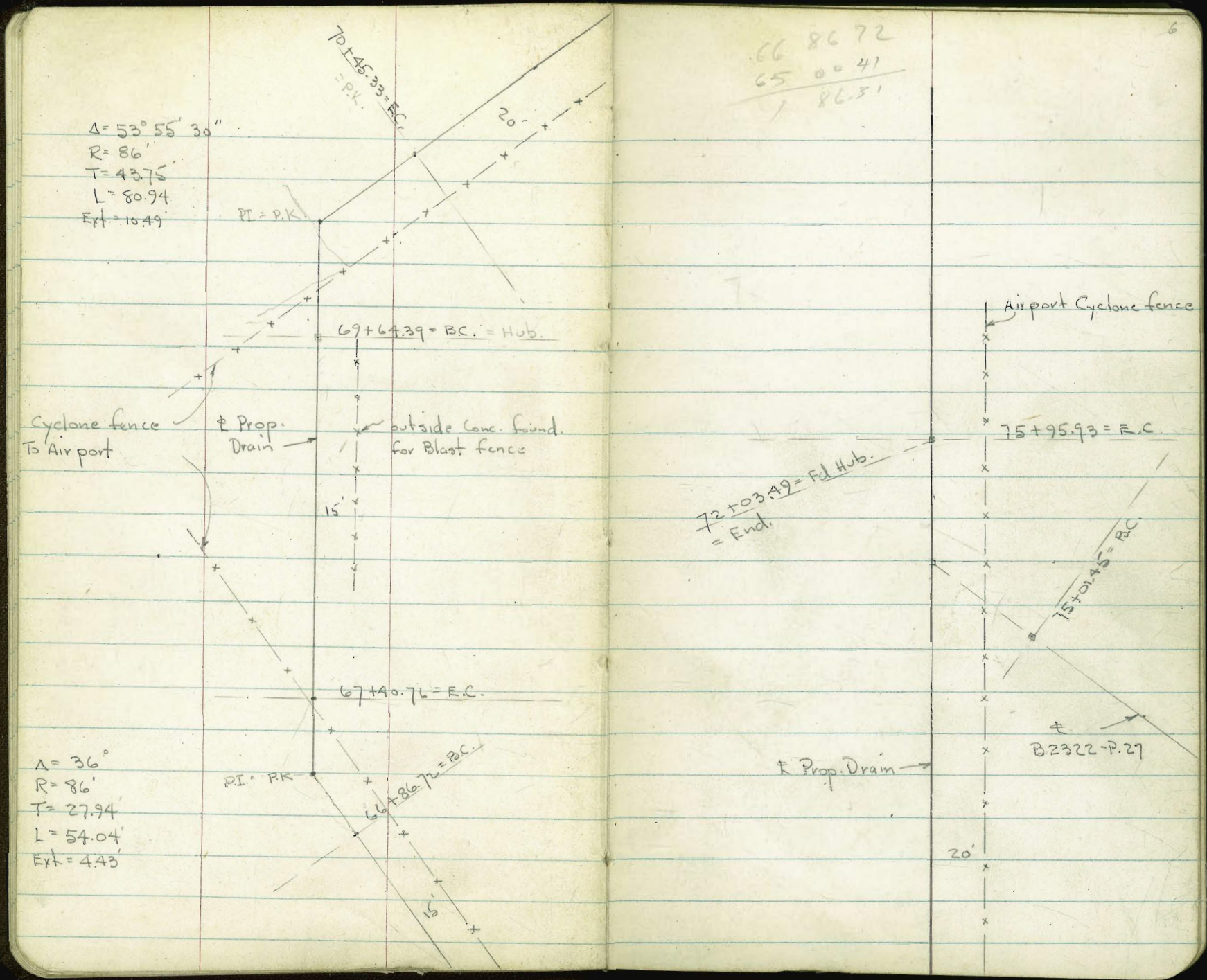
Station	Rod	Elev.	Dist.	Point
1+97	4^{48}	149^{34}	50	gut
	3^{77}	150^{05}	50	cb
	4^{92}	148^{90}	25	gut
	4^{26}	149^{56}	25	cb
	5^{41}	148^{41}	10	gut
	4^{74}	149^{08}	10	cb
	5^{58}	148^{24}	5	gut
	4^{94}	148^{88}	5	cb
	5^{15}	148^{67}		cb
	5^{81}	148^{01}		gut
	5^{35}	148^{47}	5	cb
	5^{99}	147^{83}	5	gut
	5^{57}	148^{25}	10	cb
	6^{22}	147^{60}	10	gut
	6^{37}	147^{45}	25	cb
	7^{04}	146^{78}	25	gut
	7^{73}	146^{09}	50	cb
	8^{41}	145^{41}	50	gut
1+92	3^{60}	150^{22}	50	
	4^{07}	149^{75}	25	
	4^{55}	149^{27}	10	
	4^{94}	148^{88}		
	5^{39}	148^{43}	10	
	6^{13}	147^{69}	25	
	7^{47}	146^{35}	50	

153^{82}






40
40'
7'
Nutmeg St.
P.K. in T10
P.K. in T10
9-29-55
23.51'
19.60
.52
Fd. Hub
California St.
P.I. = Hub
12.46
73.00
New. P.I. 2752-D
Δ = 63°43'30"
R = 86'
T = 53.45'
L = 95.65'
P.C. = 60+04.20 = Hub
E.C. = 60+99.85 = Hub.
6.82
30.64
55.43
Bldg. on Line
61+84.54 = P.T. P.O.T.
32'
13.87'
32'
60°
Fd. Hub
See B.2322 - P.22
60+25 - 6°55'45"
+50 15°15'30"
+75 23°35'
40'
℄ Prop. Drain
Pacific Hwy.
Pacific Hwy.
℄ Prop. Drain
15'
Cyclone fence to Air Port
Δ = 59°57'
R = 40'
L = 41.85'
T = 23.07'
Ext. = 6.18
65+00.41 = E.C. = P.K.
P.I. = P.K.
64+58.56 = B.C. = P.K.
5


70+45.33 = E.C. = P.K.
Δ = 53° 55' 30"
R = 86'
T = 43.75'
L = 80.94
Ext = 10.49
PI = P.K.
69+64.39 = B.C. = Hub.
Cyclone fence To Airport
℄ Prop. Drain
outside Conc. found. for Blast fence
15'
67+40.76 = E.C.
Δ = 36°
R = 86'
T = 27.94'
L = 54.04'
Ext. = 4.43'
PI = P.K.
66+86.72 = B.C.
15'
66 86 72
65 00 41
1 86.31
Airport Cyclone fence
75+95.93 = E.C.
72+03.49 = Fd. Hub.
= End.
75+01.45 = B.C.
℄ B2322-P.27
℄ Prop. Drain
20'

Levels along ℄ of Prop. Drain - California St. - Nutmeg + along Airport - Sketch - P. 4-6
See B. 2322 for orig. Line.
W.O. 21250 - 8-4-54 70.

	Lt	℄	Rt
58+00			23.66
57+50			24.44
57+00		24.65 7 edge A.C.	25.30
56+50			26.02
56+27 - 48.4 Lt. (radial) = ℄ outlet of 24" Steel pipe See 54+67 for inlet			
56+00 - on A.C. Pave	24.23 48.4 I.E. of outlet	26.07 7.8 edge A.C.	26.81
55+72.5' 10.2' Lt. = ℄ RR. Signal - 2x2 base			
55+68 = gut			26.86
55+50			27.05
55+21 = gut			27.17
55+13 = edge of A.C. (walk)			27.57
55+00			28.0
54+84.73 = B.C.			28.02 = on Hub.
54+67 - 49' Lt. = ℄ inlet of 24" steel pipe 54+50	25.78 49 I.E. of Inlet		28.2
54+14.4 - 7.4 Rt. = end Ely. Rail			
54+00			28.6
Beg. at 53+33.01 - See sketch			28.92 on Hub.
B.M. = P.K. in Pole - B 2322 - P. 63 22.21			

Actual Elev. shown

	Lt.	℄	Rt.
61+81 - 5.3' Lt. = Nly. end of Wood fence & Sign			
61+75 - on A.C.			18.15'
61+74.8 - 6.5' Rt. = ℄ P. Pole		BM. = 19.03 # P. 1221	
61+69.5 - 5.7' Rt. = N.W.ly. Cor. Bldg.		16' along front - 13' wide	
61+55.8 - 2.6' Lt. = Cor. of Bldg. - NEly. Cor.			
61+54.5 = edge A.C. Pave			18.35'
61+26.5 = Rail			19.36
61+21.6 = Rail			19.37
61+01.8 = Rail			19.66
60+99.85' = E.C. - 32' Lt. = ℄ inlet of 24" R.C. P.	pe to w.	14.50 I.E. 24"	19.30 - on Hub.
60+97 = Cross Rail			19.63
60+75			19.3
60+50			19.7
60+25			21.1
60+04.20 = P.C.C. 17.8' Lt. = wly rail		23.04 17.8 Rail	21.47 on Hub
59+97 - 3.5' Rt. = ℄ Deadman			
59+67.3 = end A.C.	21.53 5.5' = Cor A.C.		21.32
59+50		21.78 6' = edge	21.65'
59+00			22.23
58+50		23.07 6.4 = edge	22.95'

= in Dr. Section

64+26.5 = Wly. cb. Line of Hwy - outs along cb

64+00

63+76.8

63+69.8 / Island in ℄ of Hwy.

63+50

Beg. Reg. Sections

64.5' S. - 1.8' Back = ℄ Light Std.

30' South - end of Dr.

40.5' - N. 1.8' Back = ℄ 16" Palm

30.5' N. 2' Back = ℄ 24" Light st. Base

20.5' N. - 1.8' Back of cb = ℄ 16" Palm

from 63+20.2? Dist. back of cb

Show Trees & Lights along cb. by dist. along cb.

63+20.2 = Ely. cb. Line of Pacific Hwy. - in

63+10.8 = end A.C. at edge of Conc. walk

62+85'

62+84 - 76' Rt. = ℄ of Clean out on 24" Pipe to 2.5 x 3.5 Box E. to S - was grate - Now Covered.

62+50

62+00 - A.C. pave - Ser. Sta.

Lt.	℄	Rt.
		13.12
42" 2' Bk = ℄ Lt. Std.	6 = edge Dr.	16 = edge of Dr.
		14.38
15.20 Top cb.		14.94 = out
		15.05 = out 15.43 = Top
		15.00
	8' N. = end of Dr.	
	Ser. Sta. Dr. to	14.46
		15.12
		15.66
		10.43 = I.E. of 76" Box & 24" pipes
		16.25
		17.71

Prod. fence Back from W. for Loc. on Curve
Conc. Base for Blast fence.

69+70 - 15.7 Rt. from Tang. Prod. = end of
69+64.39 = P.C.
69+50 = edge of A.C. pave
69+00 = edge of A.C. pave
68+50
68+00
67+48.76 = E.C.
67+38 = Cross fence + edge of A.C. pave
67+13.74 = Middle of Curve
66+86.72 = P.C. - 36.9 Lt. = fence + 15' Rt. = fence
66+50
66+00
65+50
65+00.41 = E.C.
64+79.48 = Middle of Curve - 36.4' Lt. = fence
15 Rt. = cyclone fence To Air port
64+58.56 = P.C.
64+45.2 - 4' Lt. = Near Cor. of 2.5x3' Pullbox 3' along Hwy.
64+39.9 = Cross 4' Cyclone fence
64+35.6 = edge walk + Beg. A.C. pave
64+30 = edge Conc. walk

Lt.	℄	Rt.
		6.98 on Hub
		7.20
		7.9
		8.6
		9.4
		10.6
		10.95'
		11.24
		11.64
		12.08
		12.63
		13.15'
		13.31
		13.55'
		13.56
		13.56

Lt. ℄ Rt.

= End. - 20.3 Rt. = fence

72+03.49 = E.C. 75+95.93 orig. Line

71+50

71+00 - Very Rough oil pave - S. of fence

70+48.33 = E.C. - 20.4' Rt. = fence

70+04.86 = Middle of curve

T.P. on P.I. - P.K. 6.81

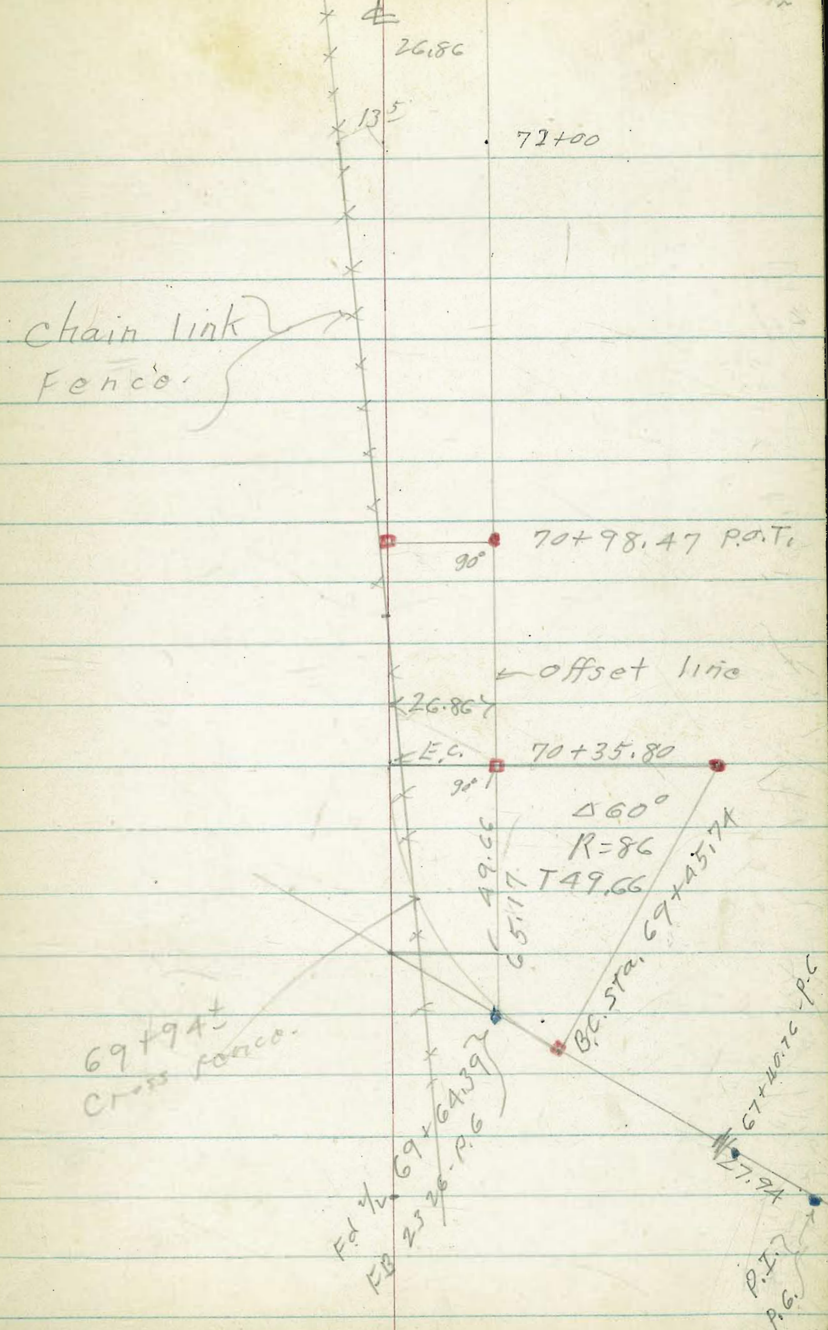
5.46 = on Hub.

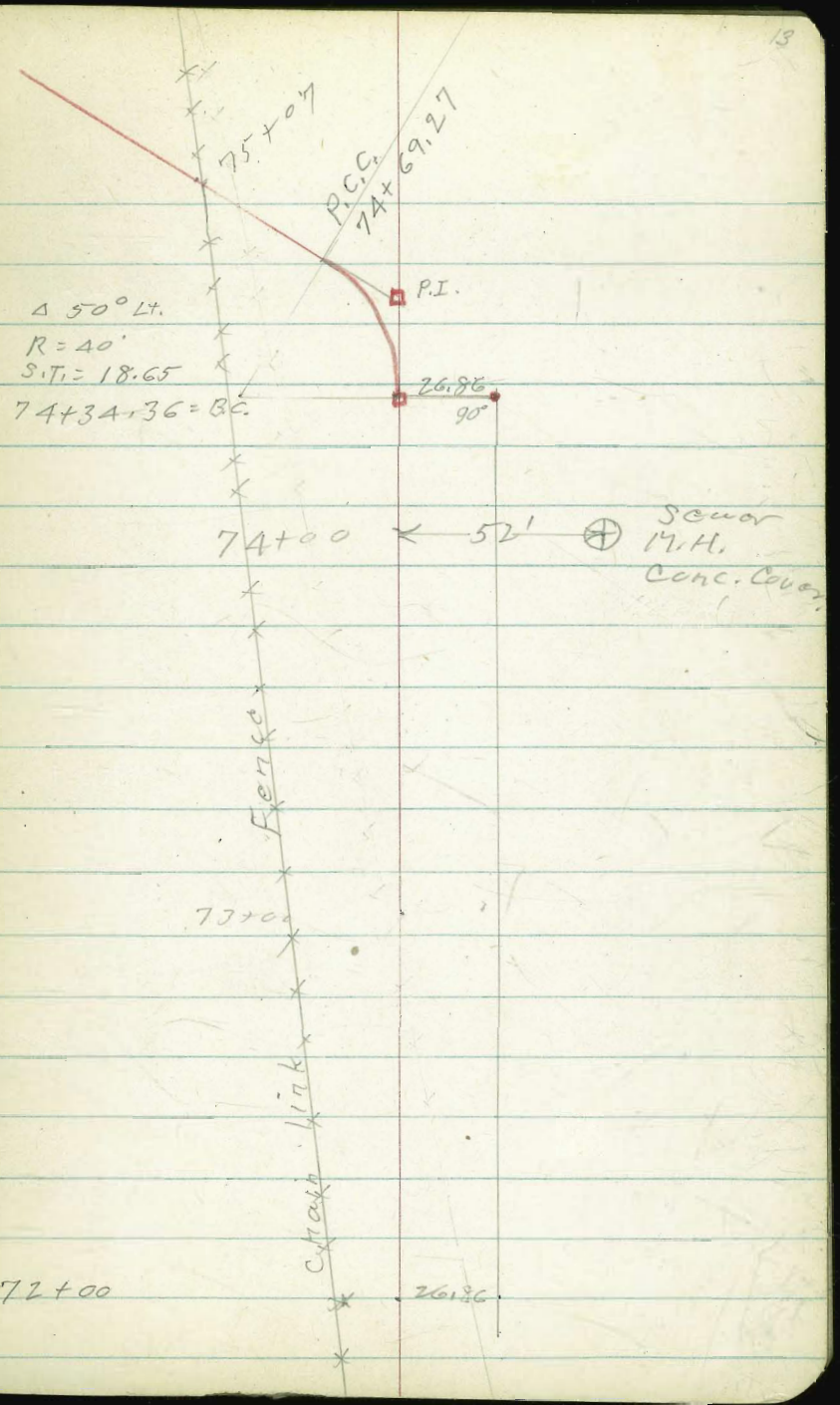
5.8

6.1

6.38 = P.K.

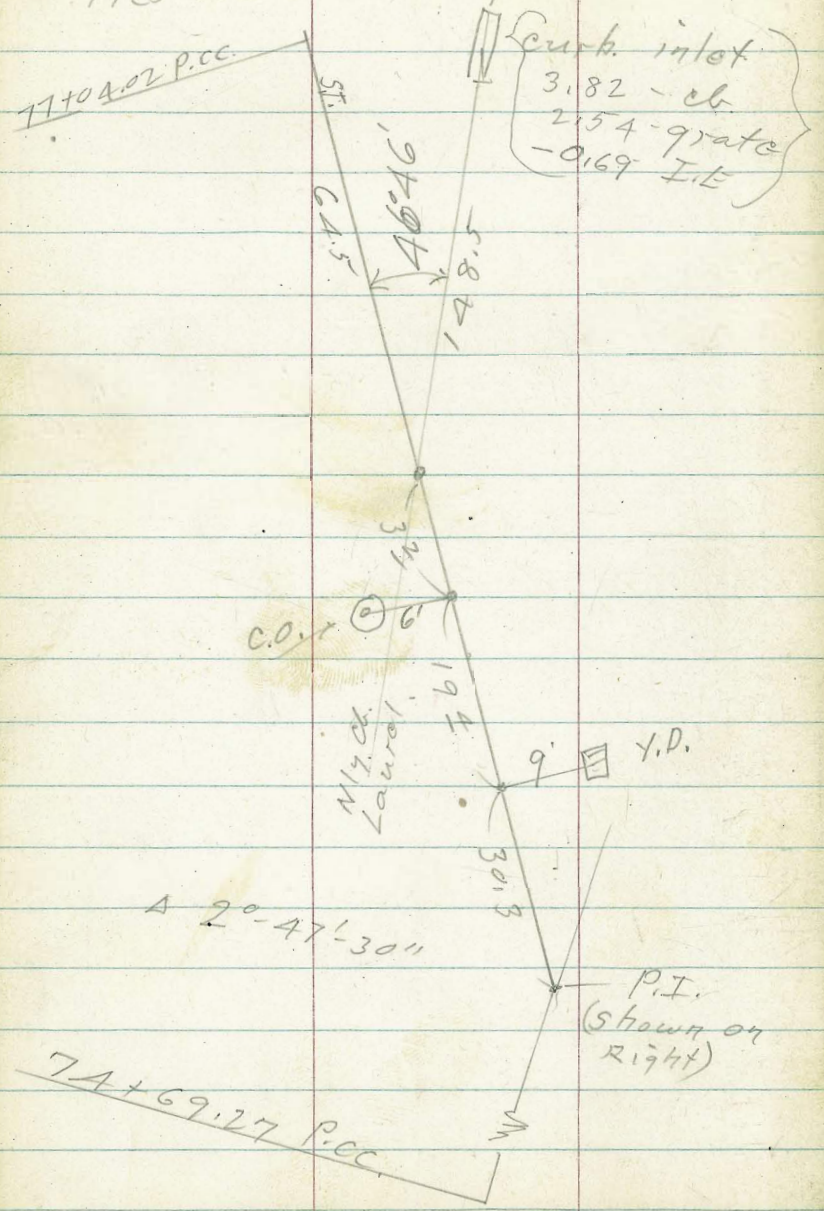
6.48

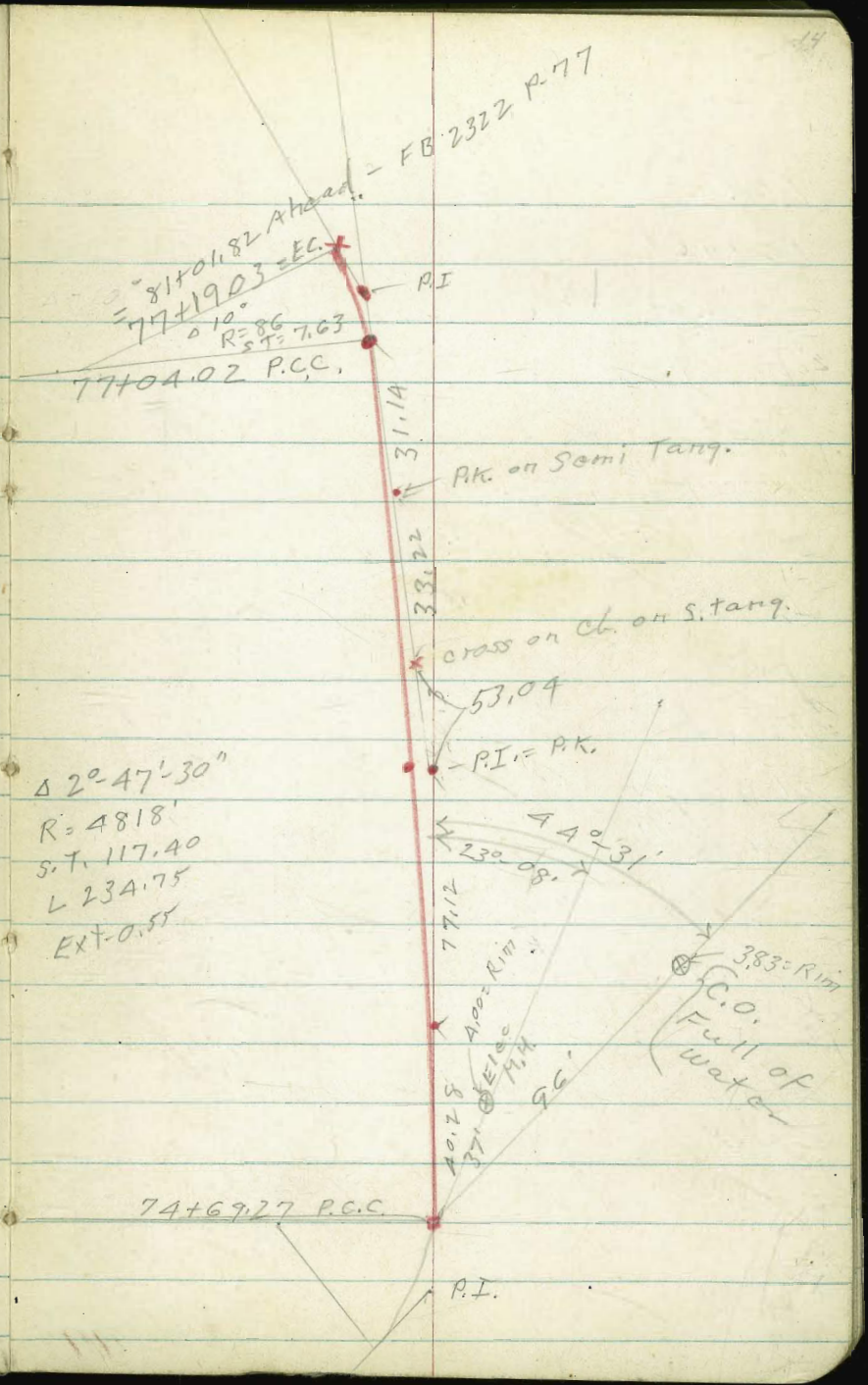

℄
26.86
13.5
72+00
Chain link
Fence.
70+98.47 P.O.T.
90°
offset line
26.86'
E.C.
70+35.80
90°
Δ60°
R=86
T49.66
49.66
65.17
69+94±
Cross fence.
B.C. Sta. 69+45.74
Fd 1/4 69+64.39
FB 2326-P.G
67+40.76 P.C
27.94
P.I.
P.G.


75+07
P.C.C.
74+69.27
P.I.
Δ 50° Lt.
R = 40'
S.T. = 18.65
74+34.36 = B.C.
26.96
90°
74+00
52'
Sewer
M.H.
Conc. Cover
Flemco
73+00
Chain link
72+00
26.96

Ties to drain + Y.D. + C.O.

Ties are off S. Tang.



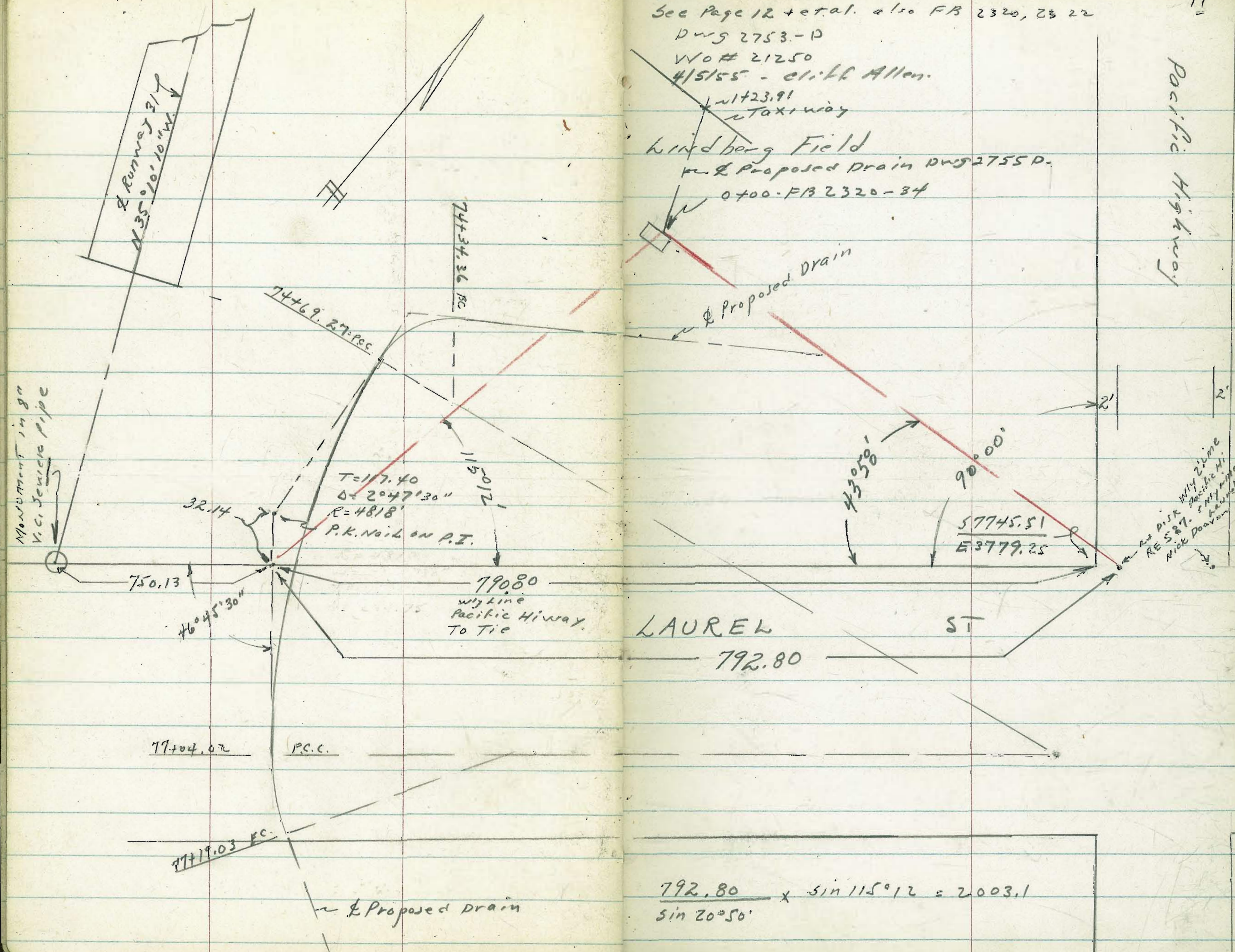


	4	
76+23	3.7	
76+16.95	3.5	3.15 91 yard drop
75+86.65 Mid curve.	3.8	
75+07 = Cross fence	4.3	
75 ~	4.1	
74+69.27 E.C.	4.0	
74+34.36 = B.C. Lt.	4.01	on Hub.
74+00	4.1	4.44 52 M.H. Rim
73+00	4.4	
72+00	5.2	
71+00	6.1	
70+98.47 ½ P.O.T.	5.99	
70+77 = Cross fence		
70+70 leave oiled parking lot.	6.1	
70+35.80 = E.C.	6.5	
70+02 = start oiled parking lot, 1" to 2" thick.		
70+00	6.9	
69+45.74 = B.C. Page 12	7.17 Hub	
BM #1 EL. = 6.98 →	69+64.39 - Page 10	

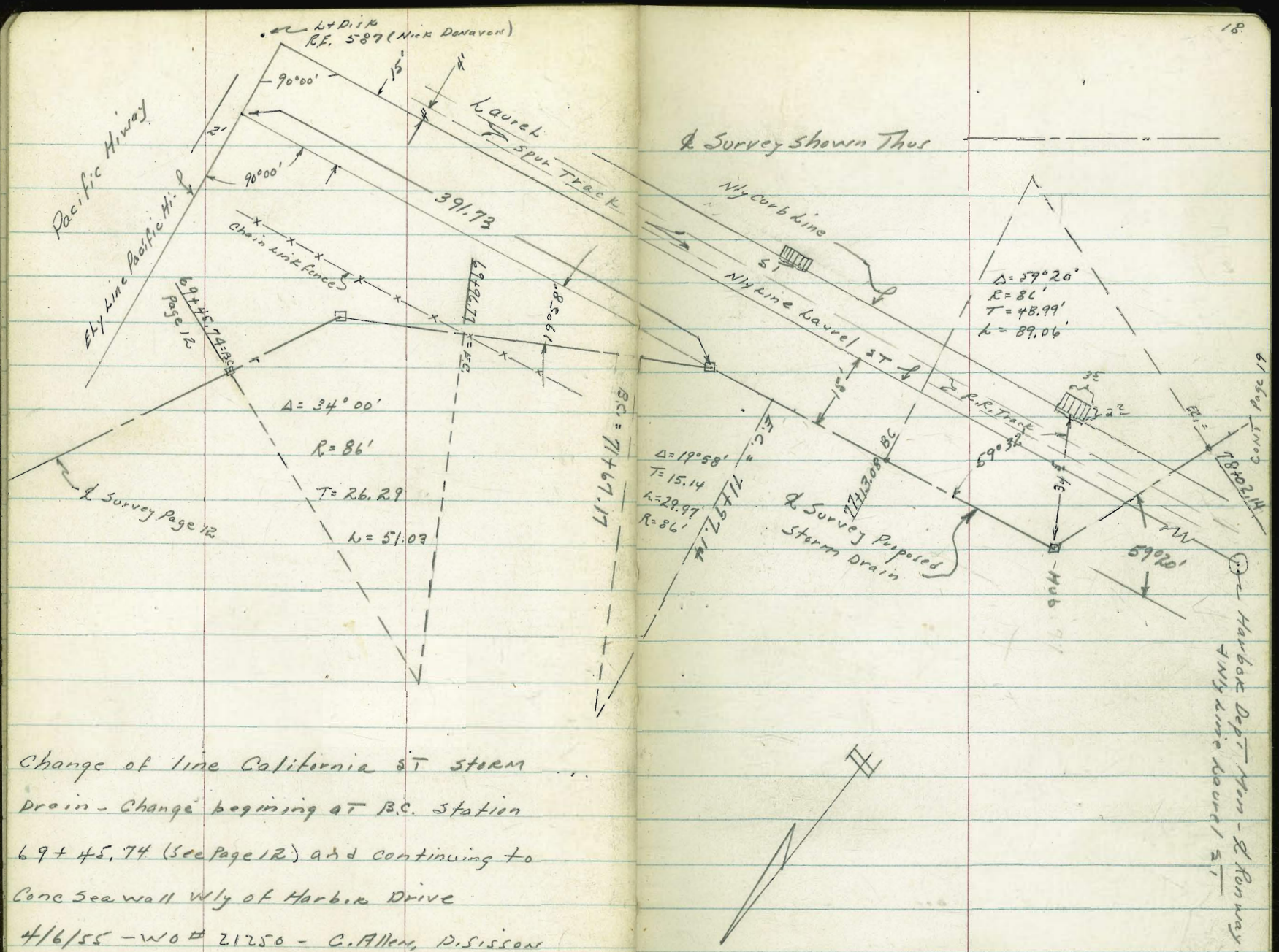
check 80+99 top. cl. FB2322-P72 .02 low. 3.68 -(3.70)

Station	Description		℄
77+19.03	E.C.		3.68
77+16.43	cb.		3.67
77+16.4	Gutter		3.07
77+04.02 =	P.C.C. (Nail)		3.40
76+73 ±	aprox. ℄ Laurel		3.81
76+39.75	G. start Laurel St. page.		3.42
76+39.7 =	Top. of curb		4.05
76+36.3		3.57 6' Rim	3.9
76+31	} cross rail of		4.07
76+24	} single track		4.09

Additional Tie's Convair Drain
See Page 12 et al. also FB 2320, 2322
Dwg 2753-D
WO# 21250
4/5/55 - Cliff Allen.



$$\frac{792.80}{\sin 20°50'} \times \sin 115°12' = 2003.1$$

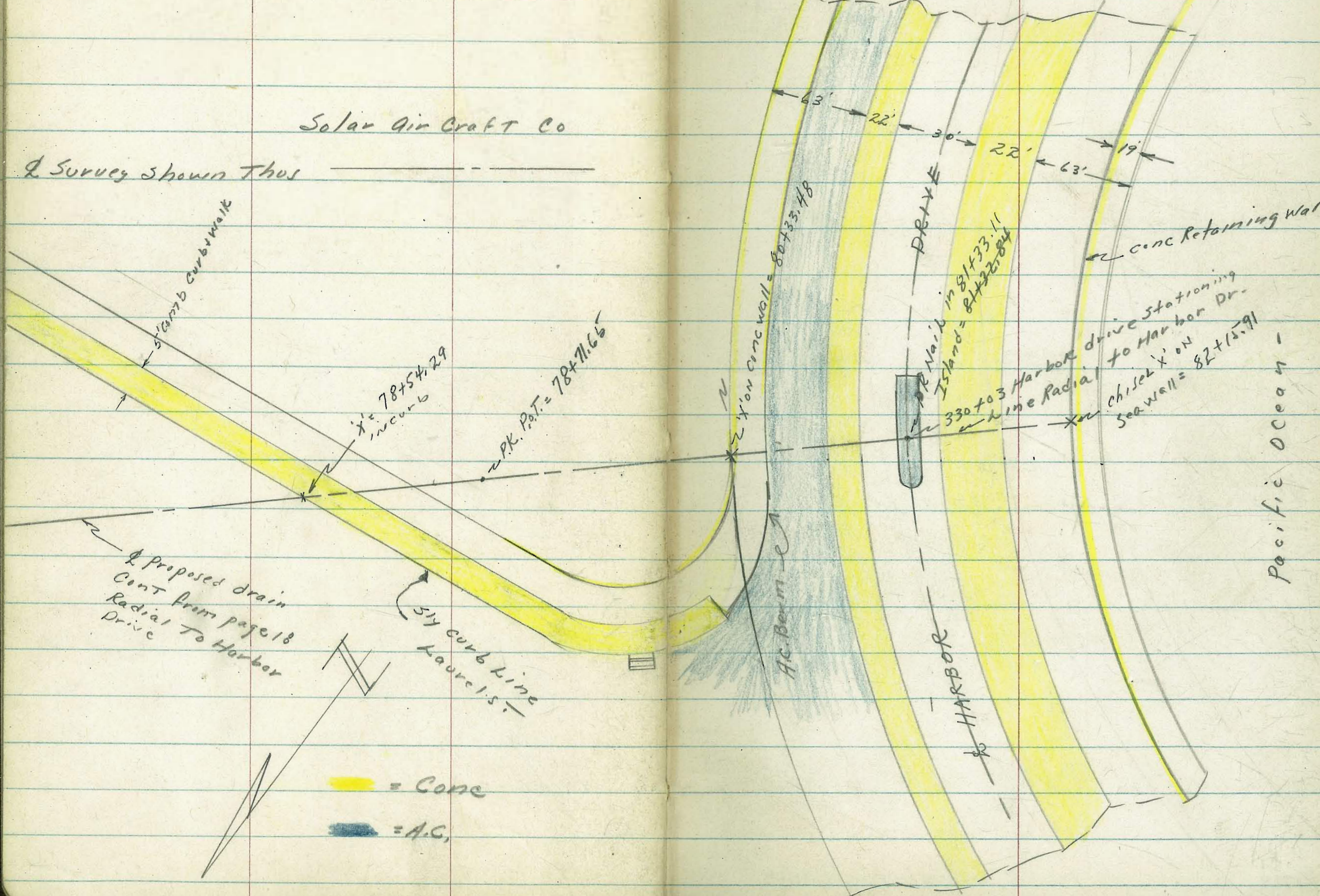


Change of line California ST storm drain - Change beginning at B.C. Station 69+45.74 (See Page 12) and continuing to Conc Sea wall Wly of Harbor Drive

4/6/55 - WO # 21250 - C. Allen, D. Sisson

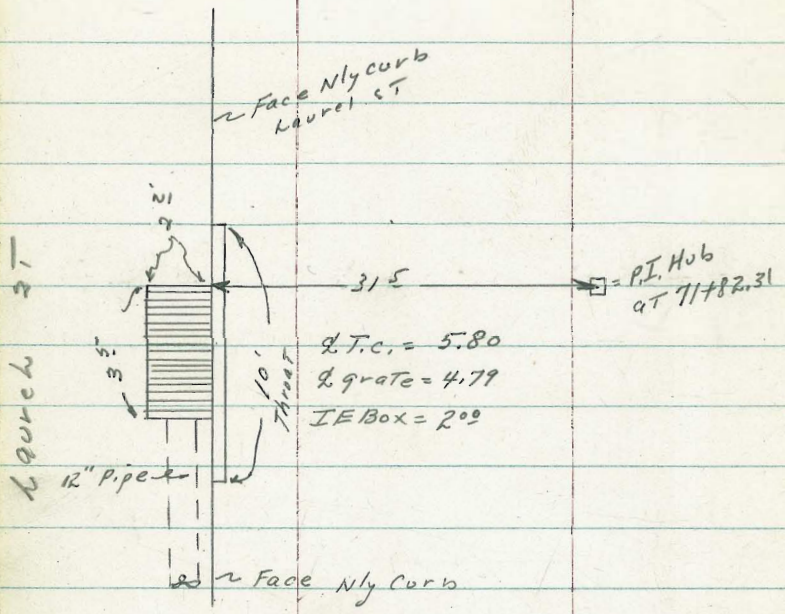
Dwg 2753-D R. Parks, C. Powell.

California ST. Drain line change Cont



Levels on Strom Drain Prelim Line
See Sketch Pages 18 + 19

	LT.	℄	RT.
℄ 71+00		5 9/10	
70+50	6 3/10	6 2/10	6 2/10
℄			
70+02 - ℄ enters Cold lay Parking Area		6 6/10 Cold Lay	
69+96,77 = ℄ Crosses chain Link fence Parking area E.C. - 3' LT = N'ly edge Cold Lay	6 9/10	7 0/3	7 0/10 6 8
69+75 - 14° RT = S'ly end Blast Fence			
Mid Point of Curve		7 0	
69+45,74 = Beg in Levels B.C. - ℄ = 51.03	7 1/10	7 2/9	7 1/10
BM 7.17	ON 2" X 2" R.W. Hub Station 69+45,74 page 15		



71+92.15 = Mid point curve

71+67.17 = B.C.

71+50

LT ℄ RT

31 5 LT of P.I Hub = Wly edge of grate

10' Throat - 3 5 x 2 2 grate + Box. 12" (?) Pipe To Ely.

5 5

5 7

5 7

Direct E.d.

Levels Prelim Drain cont

	LT	℄	RT
73+50 end Depressed curbs.	$5^{0\frac{7}{}}$ 30⁶ Top Curb	$4^{7\frac{7}{}}$ 19° Top of Rail	$4^{2\frac{2}{}}$ 10	$4^{2\frac{2}{}}$ ON Conc	$4^{3\frac{3}{}}$ 10
73+31 - 30⁶ LT = begin Standard Type G Curb					
Spur from Spur to Solar aircraft					
73+25 - 15° LT = ℄ control for switch					
73+00 - 19° LT = Nly Rail Spur Track	$4^{8\frac{9}{}}$ 19 Top Rail	$4^{6\frac{6}{}}$ 10	$4^{7\frac{7}{}}$	$4^{8\frac{8}{}}$ 10
Curb is depressed into Drive for Solar Spur TK.					
72+68 - 31⁵ LT = Begin type G curb + gutter					
72+50	$5^{0\frac{9}{}}$ 19 Top Rail	$4^{9\frac{9}{}}$ 10 C.L.	$5^{2\frac{2}{}}$ Cold Lay	$5^{2\frac{2}{}}$ 10 C.L.
72+00			$5^{4\frac{4}{}}$ Cold Lay	
Some Badly Broken Conc under Cold Lay in This area omitted for spur to solar				
71+99.14 = 31⁵ LT = Begin OMMission of curb EC - 19° LT = Nly Rail Spur Track	$5^{36\frac{36}{}}$ 19° Top Rail	$5^{2\frac{2}{}}$ 10	$5^{4\frac{4}{}}$ Cold Lay	$5^{5\frac{5}{}}$ 10
			direct Rod.	

Levels Prelim Drain

	LT	℄	RT
75+50		$3\frac{6}{10}$	$3\frac{7}{10}$
75+00	$3\frac{8}{90T}$ $4\frac{7}{30\text{ T.C.}}$ $4\frac{33}{19\text{ Top Rail}}$ $3\frac{6}{10}$	$3\frac{6}{10}$	$3\frac{7}{10}$
74+50		4^{0} $3\frac{8}{10}$	$3\frac{9}{10}$
74+00	$4\frac{29}{30\text{ GUT}}$ $4\frac{89}{30\text{ Top}}$ $4\frac{65}{19^{0}\text{ Top Rail}}$ $3\frac{9}{10}$	4^{0}	$4\frac{1}{10}$

Cold Lay Parking area continues
also ends Broken Conc slab under cold lay
73+94 - 31° LT = end depressed curb

Drive to Parking area
73+75 - 31° LT = begin depressed curb R or R

$4\frac{38}{31^{0}\text{ GUT}}$	$4\frac{98}{31^{0}\text{ T.C.}}$

Direct Rod

Levels - Prelim Drain

	LT	℄	RT
77+00	$30\frac{2}{}$ $30\frac{5}{}$ 90T	$38\frac{5}{}$ $30\frac{5}{}$ T.C	$37\frac{5}{}$ 19 Top Rail	$35\frac{5}{}$ 10	37	$4\frac{0}{}$ 10
76+50		$35\frac{5}{}$ 10	37	$4\frac{0}{}$ 10
76+30 - $30\frac{5}{}$ LT = end depressed curb		$32\frac{8}{}$ $30\frac{5}{}$ 90T	$39\frac{2}{}$ $30\frac{5}{}$ T.C.		
76+09 - $30\frac{5}{}$ LT = for drive begin depressed curb		$33\frac{8}{}$ $30\frac{5}{}$ 90T	$40\frac{1}{}$ $30\frac{5}{}$ T.C.		
76+00		$34\frac{0}{}$ $30\frac{5}{}$ 90T.	$40\frac{4}{}$ $30\frac{5}{}$ T.C.	$40\frac{7}{}$ $19\frac{0}{}$ Top Rail	$34\frac{4}{}$ 10	36	$3\frac{9}{}$ 10
75+90 - 32 ° LT = ℄ Sewer Manhole						
75+86.5 - 8° LT = ℄ cold lay Pave 2'x2' sq grate in		$6\frac{6}{}\pm$ 8^{0} IE	$31\frac{6}{}$ 8^{0} grate			

Direct Rod

Levels Prelim Drain

	LT	℄	RT
78+02 14 = E.C.		3 08 ON A.C. Pave	
77+87 - ± ℄ crosses Nly curb Laurel St		3 73 T.C.	2 93 ℄ GUT.
77+72 - ± ℄ crosses Nly Rail of Spur		3 54 Top Rail	
See Sketch for Location catch Basin	0 71 IE Box	2 48 grate	3 78 Top Cb over grate
Mid Point Curve		3 4	
77+13.08 = B.C.		3 5 10	3 7

3 9 10

Direct Rod

Levels	Prelim Drain	LT	℄	RT
$78+64$ = begin A.C. Storage area (Solar aircraft)			3^{64} A.C.	
8' Chain Link fence atop wall along Property Line $78+63^{4}$ = face 6" Conc Retaining Wall			3^{31} Dirt at face Wall	3^{64} Top Wall
Wall is along back edge of walk $78+59^{8}$ = Face 6" Conc Retaining Wall			2^{24} Top of walk at Wall	3^{45} Top of Wall
$78+54^{29}$ = Sly Curb Line Laurel ST			1^{61} gut	2^{20} ℄ Top cb on chisel 'x'
$78+45-13^{8}$ RT = ℄ S.D. Gas & elect Manhole 48" in dia				2^{25} 13^{8} Rim MH
$78+16^{1}$ ± ℄ Laurel ST			3^{00} A.C.	

Direct Rod

Prelim Drain

80+33.48 Elev = 3.65

TBM: Chisel 'X' top wall

end A.C. Paving Storage Area
8' Chain Link fence @ top wall
along Solar Aircraft Lease

80+33.48 - Face 6" Conc Retaining Wall

80+00

79+50

79+00

78+69 - 13.5 LT = proposed Bldg Solar Near CORNER of

LT ℄ RT - 27

3.68 10 Top wall	3.68 Top Wall + A.C.	3.70 10 Top wall
3.90 10 A.C.	3.87 A.C.	3.80 10 A.C.
~~4~~.06 10 A.C.	3.94 AC	3.82 10 A.C.
3.96 A.C. 10	3.98 A.C.	3.86 10 A.C.
3.76 13.5 A.C.	3.70 A.C.	

Prelim Drain

	LT	℄	RT
			28
Conc pave 81+18 ± = Wly edge of Ely 22' strip		193	
80+96 ± = Ely edge 22' conc pave. strip		218	
Turn off To Laurel St 80+79 = begin A.C. Paved Strip		096	
80+78 = Top 6" A.C. Berm		160	
80+68 ± 18.5 RT = Slyend Type 6 Curb		Top Berm	100 18.5 T.C. / 036 10.5 GUT
80+50		15	
80+34 = Wly Side of Solar Wall		20	
		Direct Rod	

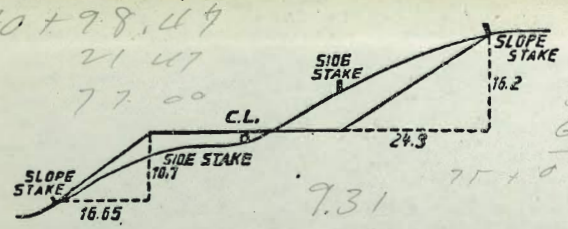
Prelim Drain
Levels check into chisel x' station 84+21   FB $\frac{2322}{74}$

Station / Description	LT	℄	RT
$82+15^{9'}$ = Sea wall - 7" Conc		0^{5} grat elyof wall	1^{71} Top wall
$81+70^{11}$ = Wly edge Conc Pave		1^{34}	
$81+48^{11}$ = Ely edge of Wly 22' strip Pave.		1^{57} Conc	
$81+41^{8}$ = face Wly curb Traffic Island		2^{07} T.C. 1^{59} ℄ gut	

Harbor Drive stationing = 330+03
℄ is Radial to ℄ Harbor Drive
Traffic Island is Paved with A.C.

Station / Description	LT	℄	RT
$81+33^{11}$ = ℄ Harbor Drive		2^{36} A.C.	
$81+30^{6}$ Nearest standard to ℄ 18^{0} RT = ℄ Light standard			
$81+24^{3}$ = face curb Traffic Island	2^{32} 26^{0} Sly end T.C.; 1^{84} 26^{0} Island gut	1^{81} gut A.C.; 2^{38} ℄ Top cb	2^{39} 44^{0} Island curb BC T.C.; 1^{80} 44^{0} gutter

70+98.47
21 47
77 00



38.5
69 3
9.31
75+07 8

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

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