

W 682

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 $30.6 + (20 - 16) \div 2$ or 2 ft. added to 30.6 = 32.6. For slopes of 1 on 1½ see inside of back cover.

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682 967.35

Please Return to
 City of San Diego Water Dept.
 Room 268 Civic Center
 Telephone Main 5161

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Indexed to P 34. ^{marked}
" p. 38 - 12/6/16 ^{marked}
45 - 4/6 ^{marked}
47 - 5/19 ^{marked}

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For state eng. ^{marked}
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CHECKING TOPOG. FOR STATE 11-31 ^{marked}

TIES TO B.M.'S USED IN CHECKING
TOPOG FOR STATE PAMO VALLEY 32-34 ^{marked}

Ties for Dam Sites "ABC" on Santa Ysabel
Creek, Pamo Valley 35-38

Void 39

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April 25, 1945
Soper - notes
King - X
Stephens - red

1

Levels to Pamo damsite "B", from Ramona. For state eng. dist.

B.M.	4.07	1446.44		1442.37
TP	2.23	1443.23	5.44	1441.00
TP	2.72	1437.73	8.22	1435.01
TP	2.63	1432.07	8.29	1429.44
TP	8.34	1438.97	1.44	1430.63
TP	6.45	1441.62	3.80	1435.17
TP	9.89	1451.42	0.09	1441.53
TP	12.75	1463.75	0.42	1451.00
TP	3.14	1466.65	0.24	1463.51
TP	12.44	1474.57	4.52	1462.13
TP	7.41	1479.86 1465.04	2.12	1472.45
TP	6.38	1484.39 1469.57	1.85	1478.01 1463.19
TP + B.M. 7	3.85	1486.96 1472.14	1.28	1483.11 1468.29
TP	1.61	1483.48 1468.66	5.09	1481.87 1467.05
TP	11.20	1492.68 1477.91	1.95	1481.48 1466.71
TP	10.34	1502.47 1487.70	0.55	1492.13 1477.36

U.S.C+G
A standard U.S.G.S. disk stamped "B 62 1927", set 1 1/2 feet above the sidewalk, in the southeast corner of the foundation of the Bank of America, Ramona Branch, at Ramona, Calif. Recorded elevation 1442.369

Set B.M. Spike in guy pole. S.E. corner of junction of rd Pamo, Escondido and Ramona. 1.55 miles from Ramona Bank.

		1502.47			
		1487.70			
TP	10.66	1512.03	1.10	1501.37	
		1497.26		1486.60	
TP	10.33	1522.34	0.02	1512.01	
		1507.57		1497.24	
TP	11.89	1533.90	0.33	1522.01	
		1519.13		1507.24	
TP	12.88	1546.54	0.24	1533.66	
		1531.77		1518.89	
TP	11.28	1557.44	0.38	1546.16	
		1542.67		1531.39	
TP	11.41	1568.77	0.08	1557.36	
		1554.00		1542.59	
TP	6.13	1574.58	0.32	1568.45	
		1560.81		1554.68	
TP				1569.78	1569.83
ck. on B.M.			4.80	1556.01	
	9.02	1578.80			
TP	1.29	1567.39	12.70	1566.10	
TP	0.41	1554.83	12.97	1554.42	
TP	0.15	1542.63	12.35	1542.48	
TP	0.38	1530.79	12.22	1530.41	
TP	0.36	1518.54	12.61	1518.18	
TP	0.37	1506.71	12.20	1506.34	
TP	0.36	1494.06	13.01	1493.70	
TP	0.16	1481.33	12.89	1481.17	
TP	0.24	1469.27	12.30	1469.03	

U.S.C. & G.S. B.M. Brass cap in rock in driveway 65' W of road at
 top of Pama grade. Cap is stamped "D-301 1935"
 2.7 miles from Panama Bank. Marked 1570 on topog. map.

		1469.27		
TP	0.10	1456.43	12.94	1456.33
TP	0.43	1444.58	12.28	1444.15
TP	0.43	1432.54	12.47	1432.11
TP	0.44	1419.93	13.05	1419.49
TP	0.36	1407.61	12.68	1407.25
TP	0.48	1395.17	12.92	1394.69
Set B.M. 3			12.51	1382.66 1382.71
B.M. 3	1.03	1383.74		1382.71
TP	0.27	1371.43	12.58	1371.16
TP	0.40	1358.98	12.85	1358.58
TP	0.82	1347.29	12.51	1346.47
TP	0.37	1335.70	11.96	1335.33
TP	0.35	1323.57	12.48	1323.22
TP	0.43	1311.87	12.13	1311.44
TP	0.53	1300.25	12.15	1299.72
TP	0.42	1287.87	12.80	1287.45
TP	0.15	1275.76	12.26	1275.61

+0.05 - Previous page = 1382.71 Nail in side of bank 3.3 miles

from Ramona

April 27, 1945

Super - notes
King - X
Stephens - red

		1275.76		
TP	0.23	1262.90	13.09	1262.67
TP	0.48	1250.91	12.47	1250.43
TP	0.50	1238.62	12.79	1238.12
TP	0.72	1226.51	12.83	1225.79
TP	0.44	1214.25	12.70	1213.81
TP	0.09	1201.46	12.88	1201.37
TP	0.19	1188.94	12.71	1188.75
TP	0.10	1176.08	12.96	1175.98
TP	0.46	1163.59	12.95	1163.13
TP	0.18	1151.24	12.53	1151.06
TP	0.46	1139.64	12.06	1139.18
set B.M.#4			11.39	1128.25
TP	0.05	1128.30	12.00	
TP	0.59	1116.70	12.19	1116.11
TP	0.37	1104.39	12.68	1104.02
TP	3.68	1095.92	12.15	1092.24
TP	0.61	1083.58	12.95	1082.97
TP	0.34	1071.04	12.88	1070.70

Nail in bank, 3.7 miles from Ramona.

		1071.04		
TP	0.31	1058.33	13.02	1058.02
TP	0.61	1046.65	12.29	1046.04
TP	0.13	1034.11	12.67	1033.98
TP	0.10	1021.41	12.80	1021.31
TP	0.36	1008.72	13.05	1008.36
TP	0.09	995.96	12.85	995.87
TP	0.02	983.03	12.95	983.01
TP	0.50	970.59	12.94	970.09
TP	0.08	957.99	12.68	957.91
TP	0.18	945.25	12.92	945.07
TP	3.04	937.97	10.32	934.93
Set B.M. #5			7.05	930.92
TP	0.31	932.43	5.85	932.12
TP	0.58	923.32	9.69	922.74
TP	5.24	918.62	9.94	913.38
TP	3.26	910.02	11.86	906.76
TP	7.87	904.99	12.90	897.12
TP	9.63	914.45	0.17	904.82

N.W. Corner of Concrete Headwall on West side of road at
the foot of Pismo grade 4.1 miles from Ramona

		914.45		
	12.55	926.64	0.36	914.09
	12.34	938.84	0.14	926.50
set B.M. #6			1.65	937.19
	3.61	942.15	0.30	938.54
	0.31	929.62	12.84	929.31
IP	0.95	917.67	12.90	916.72
IP			12.04	905.63
	0.47	906.10		
IP	0.53	893.89	12.74	893.36
IP	2.93	885.11	11.71	882.18
IP	9.13	894.24	0.00	885.11
	0.44	881.70	12.98	881.26
IP	1.32	870.72	12.30	869.40
			10.25	860.47
			5.70	865.02
set B.M. #7			6.11	864.61

Pointon rock on west side of road.

April 30 1945

Soper - notes
King " "
Stephens - red

Top of 3" pipe, test hole #7 Rec. elev 868.32 - Damsite "B"

" " 3" " " " #8 " " 859.47 " "

" " 2" " " " #3 " " 865.50 " "

Top of concrete wall of gauging station at Pemo damsite "B"

855.08 = 6.70 of gauge

Rough levels to check into B.M. shown on topog map, elev. 1010

B.M. #5 6.82 937.74 930.92

ck on B.M. 4.05 933.69

TP 0.20 928.40 9.54 928.20

TP 8.24 930.60 6.04 922.36

TP 2.00 919.66 12.94 917.66

TP 9.15 927.17 1.64 918.02

TP 12.92 930.17 9.92 917.25

TP 12.95 942.90 0.22 929.95

TP 12.81 955.48 0.23 942.67

TP 9.20 963.64 1.04 954.44

TP 0.14 953.45 10.33 953.31

10.05 943.40

TP 13.09 961.25 5.29 948.16

TP 11.60 972.21 0.64 960.61

TP 12.73 984.85 0.09 972.12

TP 12.93 997.12 0.66 984.19

8.58 999⁵⁷ 6.13 990.99

111.84 999.14

12.70 1011.64 0.43 998.94

April 30, 1945
Soper notes 7
King X
Stephens rod

N.W. Cor. of conc. hd wall at foot of Pomo grade

U.S.C. & G.S. B.M. Stamped C-301-1935. On east side of road 500' ± North of B.M. #5.

ck on U.S.C. & G.S. B.M. B-301. 1935

1011.84

IT 12.15 1020.10 3.89 1007.95

ck on B.M. 10.38 1009.72

8
U.S. Co G.S. B.M. "A-301" 1935. Marked 1010 on topog. map.

Levels from Pamo damsite "B" to Pamo damsite "A" For State Eng.

B.M.	6.31	870.92		864.61
Set B.M.	12.71	883.09	0.54	870.38
TP	11.71	894.23	0.57	882.52
TP	1.30	893.84	1.69	892.54
TP	0.34	885.95	8.23	885.61
TP	0.25	877.58	8.62	877.33
TP	0.82	865.78	12.62	864.96
TP	1.07	853.77	13.08	852.70
TP	10.71	862.30	2.18	851.59
TP	8.82	870.39	0.73	861.57
TP	5.62	868.91	7.10	863.29
TP	12.81	881.56	0.16	868.75
TP	12.72	893.98	0.30	881.26
TP	12.58	906.35	0.21	893.77
TP	12.71	918.94	0.12	906.23
TP	12.51	931.32	0.13	918.81
TP	12.27	943.47	0.12	931.20

May 1 1945
Soper notes
King
Stephens red

9

On gauging station, damsite "B"

Point on rock, near test drill hole "7"

943.47

II 12.64 955.75 0.36 943.11

IP 13.09 968.51 0.33 955.42

IP 11.45 979.67 0.29 968.22

Set B.M. 11.50 968.17

Set B.M. 2.94 976.73

Rough check levels, back to U.S.C. & G.B.M. - C-301

B.M. 10.73 978.90 968.17

0.27 966.22 12.95 965.95

0.22 953.47 12.97 953.25

2.06 943.01 12.52 940.95

4.94 936.85 11.10 931.91

12.24 937.40 11.69 925.16

7.65
0.66 944.39 0.66 936.74

ck on B.M. 56 7.25 937.14

7.59 942.06 9.92 934.47

ck on B.M. 8.58 933.48

On old cross on rock 13' north of road

on rock, 2' above road on south side of road

Point on rock. Rec. elev. 937.19

This turn was a very long shot.

U.S.C. & G.B.M. C-301 1935 Rec 933.69

for state topog. check

Levels on Base Line - Pamo Valley X

	3.86	937.39		933.53
	6.17	934.90	8.66	928.73
Pt. A	4.16	929.90	9.16	925.74
	7.36	934.74	2.52	927.38
B.M. C-301			1.22	933.52
	0.29	926.03		925.74
	1.07	921.23	5.87	920.16
	1.34	913.53	9.04	912.19
	0.83	906.37	7.99	905.54
T.B.M.	3.89	901.88	8.38	897.99
	12.37	914.20	0.05	901.83
	11.91	926.01	0.10	914.10
	12.32	937.21	1.12	924.89
T.B.M.	0.60	937.52	0.29	936.92
	1.52	926.57	12.47	925.05
	0.20	914.12	12.65	913.92
	0.43	902.76	11.79	902.33

KING Leonard
Klinger Waddel
Nov. 9-45

11

C#301

Spike in Guard Post West Side Road

Nail in Tel Pole 50' S. P + B

		902.76			
B.M.	8.19	906.17	4.78	897.98	897.99
	8.18	914.07	0.28	905.89	
	9.58	922.18	1.47	912.60	
	6.21	927.07	1.32	920.86	
P+ A			1.32	925.75	925.74

B.M.	13.05	949.97		936.92	
	12.67	961.18	1.46	948.51	
	12.34	971.28	2.24	958.94	

P+ B	2.80	970.70	3.38	967.90	
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T.P.	0.68	961.07	10.31	960.39	
	2.04	950.25	12.86	948.21	
	8.72	946.62	12.35	937.90	

B.M.			9.68	936.94	936.92
------	--	--	------	--------	--------

N. 14 guard rail Post West side Road

2x2 Hub

No. 1 in T.P.

042x2 Hub

No. 1 in T.Pole

H.I	Setup	From	To	Hor.	Ver
530.82	A	B	#1	121° 14'	43° 52'
	A	B	#2	197° 0'	+0° 41'

⁵¹⁴ 530.78	A	2	3	63° 57'	+4° 33'
	A		B		+1° 25'

⁴⁸⁰ 972.70	B	2E927	2E939	73° 14' 30"	-
"	B	2E927	C ?	82° 48'	-1° 16'
			D		

Ward - T 14
 Phillips - T
 Waddel - Notes

7/13/45

	+	H.I.	-	ELEV
T.B.M.	3.34	901.33		897.99
T.P.	12.82	912.99	1.16	900.17
T.P.	7.68	920.65	0.02	912.97
T.P.	8.68	927.77	1.56	919.09
T.P.	6.55	932.59	1.73	926.04
T.P.	1.76	926.87	7.48	925.11
T.P.	1.10	919.40	8.57	918.30
B.M.			5.90	913.50

Spike in Guard post west side road

160' South of point
 Rock on east side road

Point 2F939

2.59	916.04		913.45	(913.50)
3.18	906.85	12.37	903.67	

Point 2F939

12.98	893.87		893.91	
-------	--------	--	--------	--

Ward T 15
 Phillips ↑
 Klinger Notes

7/14/45

160' So. of Point-Rock
 East Side Road

	+		-	
B.M.	2.60	916.05		913.45
T.P.	3.29	913.88	5.46	910.59
T.P.	9.58	921.30	2.16	911.72
Point "C."			1.96	919.34

Check Back

TP	1.96	921.30		919.34
TP	3.84	913.84	11.30	910.00
	5.56	915.99	3.41	910.43
B.M.		2.55	913.44	913.45

check into B.M. 160' So. of Point
 Rock East Side Road

TP	6.31	919.76		913.45	913.50
	6.36	919.02	7.10	912.66	
	9.21	926.74	1.49	917.53	
	7.59	932.78	1.55	925.19	
	1.37	927.28	6.87	925.91	
	1.52	919.91	8.89	918.39	
	0.38	911.87	8.42	911.49	
	0.99	902.18	10.68	901.19	
B.M.		4.18	898.00	898.05	897.99

7/19/45

BM ₂	2.57	916.02		913.45
TP	2.82	913.71	5.13	910.89
TP	6.38	912.52	7.57	906.14
TP	6.44	914.61	4.35	908.17
TP	7.79	919.32	3.08	911.53
B.M. ₃			4.17	915.15

160' So. of Point-Rock - Hub.
East Side Road.

Hub 75' NE of Large Oak
West Side of Road

7/14/45

BM ₁	4.10	902.09		897.99
-----------------	------	--------	--	--------

TP	10.54	912.38	0.25	901.84
----	-------	--------	------	--------

TP	10.35	922.69	0.04	912.34
----	-------	--------	------	--------

TP	9.21	931.77	0.13	922.56
----	------	--------	------	--------

TP	2.24	930.33	3.68	928.09
----	------	--------	------	--------

TP	1.70	922.64	9.39	920.94
----	------	--------	------	--------

TP	4.10	919.44	7.30	915.34
----	------	--------	------	--------

TP	2.67	917.50	4.61	914.83
----	------	--------	------	--------

BM ₂			4.05	913.45
-----------------	--	--	------	--------

Spike in Guard post west

Side Road.

Hub 160 So. of Point Rock

East Side Rd.

B.M.₃ 3.33 918.48 915.15

T.P. 3.43 914.92 6.99 911.49

T.P. 2.45 911.34 6.03 908.89

T.P. 5.46 913.58 3.22 908.12

T.P. 4.99 915.75 2.82 910.76

B.M.₂ 2.31 913.44

913.45

18

7/14/45

Hub 75' N.E. OF LARGE

OAK. WEST SIDE ROAD. - 75' Lt. &

160' So. of Point Rock - Hub

East Side Road - 15' Rt. &

BM ₃	5.49	920.64		915.15
TP	9.46	927.56	2.54	918.10
TP	5.50	929.64	3.42	924.14
TP	3.92	931.31	2.25	927.39
B.M. ₄	0.18	922.96	8.53	922.78
TP	6.21	926.41	2.76	920.20
TP	10.72	936.77	0.36	926.05
TP	12.52	948.82	0.47	936.30
TP	9.76	957.27	1.31	947.51
TP	5.20	958.60	3.87	953.40
TP	9.41	966.35	1.66	956.94
TP	2.23 _x	960.07	8.51	957.84
B.M. ₅	1.50	958.69	2.88 _x	957.19
TP	1.60	954.02	6.27	952.42
TP	0.86	946.90	7.98	946.04
TP	5.22	946.09	6.03	940.87
B.M.			2.52	943.57

Ward - T 19
Phillips - 9
7-15-45
Klinger - Notes

Placed Hub South of Bridge
No. End Ranger Station - 75' Rt. &

Placed Hub 600' So. of Mon.
No. B 301. - 15' Rt. & Rd.

Checked To Mon. No B 301. U.S.C.G

Check Back.

B.M. B301	2.02	945.59		943.57
TP	5.91	946.63	4.87	940.72
TP	8.03	954.48	0.18	946.45
TP	5.92	959.10	1.30	953.18
B.M. ₅	2.12	959.31	1.91	957.19 (957.19)
TP	5.94	962.76	2.49	956.82
TP	2.94	964.20	1.50	961.26
TP	3.42	957.25	10.37	953.83
TP	0.50	945.84	11.91	945.34
TP	0.14	936.82	9.16	936.68
TP	0.76	928.98	8.60	928.22
TP	1.87	923.81	7.04	921.94
TP	7.50	924.80	6.51	917.30
B.M. ₄			2.07	922.73 (922.78)

7-15-45

Ward T 20
Phillips P
Klinger Notes

USCG Mot. B-301

Checked Into B.M.₅

Checked Into B.M.₄

Check Back

BM ₄	6.43	929.21		922.78
TP	3.53	931.57	1.17	928.04
TP	3.52	929.13	5.96	925.61
TP	1.31	925.78	4.66	924.47
TP	2.40	920.47	7.71	918.07
BM ₃			5.31	915.16 (915.15)

Ward T 21
Phillips ?
7-15-45 Klingor Notes

checked into BM₃

Check Back

B.M ₄	1.00	923.78		922.78
TP	4.47	924.66	3.59	920.19
TP	7.26	930.17	1.75	922.91
TP	7.21	936.95	0.43	929.74
TP	11.91	948.19	0.67	936.28
TP	9.77	957.46	0.50	947.69
TP	6.73	959.96	4.23	953.23
TP	6.54	966.39	0.11	959.85
TP	2.44	961.73	7.10	959.29
TP	4.72	960.53	5.92	955.81
B.M ₅		3.36	957.17	(957.19)

7-15-45

Checked into B.M₅

B.M. B ₃₀₁	1.72	945.29		943.57
TP	5.53	947.81	3.01	942.28
TP	5.56	947.60	5.77	942.04
TP	5.66	949.26	4.00	943.60
TP	5.77	952.70	2.33	946.93
TP	9.01	960.69	1.02	951.68
TP	6.19	965.17	1.71	958.98
TP	2.89	964.78	3.28	961.89
B.M. ₆	3.57	961.74	6.61	958.17
TP	5.25	962.01	4.98	956.76
TP	9.55	970.53	1.03	960.98
TP	7.59	978.06	0.06	970.47
TP	7.79	984.84	1.01	977.05
TP	10.82	994.76	0.90	983.94
TP	7.54	1001.92	0.38	994.38
TP	1.39	996.82	6.49	995.43
TP	0.77	990.46	7.13	989.69
B.M. ₇			6.69	983.77

7-16-45

USC+G B.M. B-301

Placed Hub .4 Mi North of
USC+G Mon. No. B-301. - 20' Rt. of Rd

Placed Hub .7 Mi North USC+G Mon.
No. B 301. 15' of Rd. Foot of Large
Boulders.

7-17-45

BM ₇	2.06	985.83		983.77
TP	1.04	980.25	6.62	979.21
TP	3.87	977.07	7.05	973.20
TP	10.26	984.25	3.08	973.99
TP	5.94	988.62	1.57	982.68
TP	8.42	995.98	1.06	987.56
TP	5.40	995.80	5.58	990.40
TP	10.73	1006.45	0.08	995.72
BM ₈	11.39	1015.51	2.33	1004.12
TP	12.65	1026.79	1.37	1014.14
TP	1.09	1026.61	1.27	1025.52
TP	3.41	1017.53	12.49	1014.12
TP	5.22	1014.70	8.05	1009.48
TP	4.35	1012.11	6.94	1007.76
TP	2.90	1011.24	3.77	1008.34
TP	3.46	1011.98	2.72	1008.52
TP	7.53	1017.07	2.44	1009.54
B.M. ₉			5.73	1011.34

Placed Hub 200' North From
Where Pole Line Crosses Rd.
West Side Rd. - 15' LT & Rd.

Placed Hub 400' North of Cattle Guard
Of Ellingwood Ranch. West Side of Rd.
15' LT & Rd.

7-17-45

B.M.g	7.18	1018.52		1011.74
TP	6.09	1020.44	4.17	1014.35
TP	1.00	1013.85	7.59	1012.85
TP	2.84	1010.72	5.97	1007.88
TP	1.68	1007.51	4.89	1005.83
TP	9.79	1011.69	5.61	1001.90
			1.85	1009.84

Checked To USC+G Mon. A 301 -1935

Check Back

7-19-45

B.M. A-301	1.39	1011.23		1009.84
---------------	------	---------	--	---------

TP.	5.44	1008.21	8.46	1002.77
-----	------	---------	------	---------

TP.	5.17	1010.72	2.66	1005.55
-----	------	---------	------	---------

TP.	9.59	1017.16	3.15	1007.57
-----	------	---------	------	---------

TP.	4.25	1019.19	2.22	1014.94
-----	------	---------	------	---------

TP.	3.16	1018.71	3.64	1015.55
-----	------	---------	------	---------

BM ₉			7.34	1011.37 (1011.34)
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Checked Into BM₉

B.M. A301	9.13	1019.02		1007.89
T.P.	3.89	1018.53	4.38	1014.64
T.P.	7.10	1021.58	4.05	1014.48
T.P.	7.52	1027.48	1.62	1019.96
T.P.	9.71	1036.16	1.03	1026.45
T.P.	5.95	1041.93	0.18	1035.98
T.P.	0.92	1035.22	7.63	1034.30
T.P.	5.89	1033.63	7.48	1027.74
B.M.#10	4.50	1037.45	0.68	1032.95
T.P.	6.32	1037.72	6.05	1031.40
T.P.	8.53	1045.00	1.25	1036.47
T.P.	6.06	1049.82	1.24	1043.76
T.P.	3.11	1049.86	3.07	1046.75
T.P.	6.11	1052.56	3.41	1046.45
T.P.	12.06	1064.52	0.10	1052.46
T.P.	4.27	1067.00	1.79	1062.73
B.M.#11	7.11	1069.17	4.94	1062.06

B.M.#10 Hub in fence line by second
 post on Rt. side of road
 .4 mile north of USC+G Mon. A301-1935

B.M.#11 Hub on bank 50' Rt of
 North end of
 Feeding manger

7-20-45

BM#12	2.62	1066.63	5.16	1064.01
-------	------	---------	------	---------

T. P.	0.71	1057.93	9.41	1057.22
-------	------	---------	------	---------

T. P.	7.26	1060.06	5.13	1052.80
-------	------	---------	------	---------

T. P.	9.29	1066.34	3.01	1057.05
-------	------	---------	------	---------

T. P.	11.21	1074.90	2.65	1063.69
-------	-------	---------	------	---------

BM#13			3.31	1071.59
-------	--	--	------	---------

BM#12 Hub in fence corner 200'
north of mangers

BM#13 Hub 26' Pt. of gate on
North Bank North of field

B.M.#11	1.31	1063.37		1062.06
T.P.	0.74	1051.85	12.26	1051.11
T.P.	1.64	1041.34	12.15	1039.70
T.P.	11.80	1050.23	2.91	1038.43
T.P.	8.84	1058.47	0.60	1049.63
B.M.#14			7.22	1051.25

check levels B.M.#14 - B.M.#11

Nov. 27
King
heard
Waddell

B.M.#14	0.26	1051.51		1051.25
T.P.	1.95	1040.39	13.08	1038.43
T.P.	12.31	1051.74	0.95	1039.43
T.P.	11.43	1062.63	0.54	1051.26
B.M.#11			0.55	1062.08 1062.06

Wards T 30

Phillips T

7-21-45

Waddell-Notes

Hayfield 300' West of Streambed

Hub on bank 50' Rt of No End Foster Feed lot

B.M				
X321	2.60	340.10		337.5
T.P	5.82	339.38	6.54	333.56
T.P	8.08	344.92	2.54	336.84
T.P	6.68	348.34	3.26	341.66
T.P	9.35	356.66	1.03	347.31
B.M. ₂			5.82	350.84

Check Back Levels

B.M. ₂	4.76	355.60		350.84
T.P	1.21	348.99	7.82	347.78
T.P	2.71	345.19	6.51	342.48
T.P	1.96	338.96	8.19	337.00
T.P	5.53	339.19	5.30	333.66
B.M X321			1.70	337.44 (337.5)

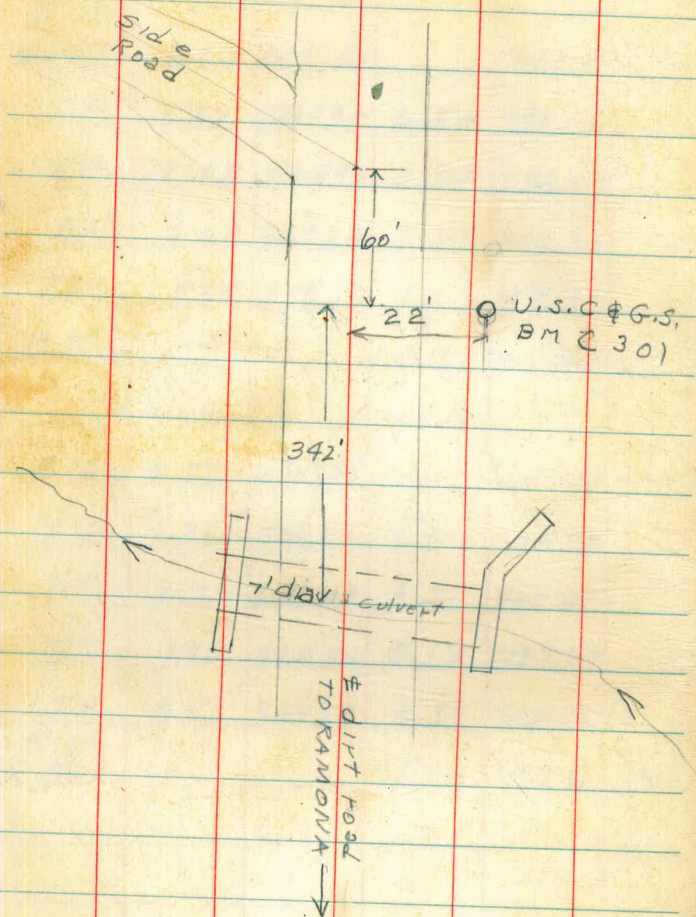
Nov. 28 '45

Ward 31
Phillips

500' E of 2F 955

500' E of 2F 955

Ties To BM's Used in Pommo Valley TOPOG Survey

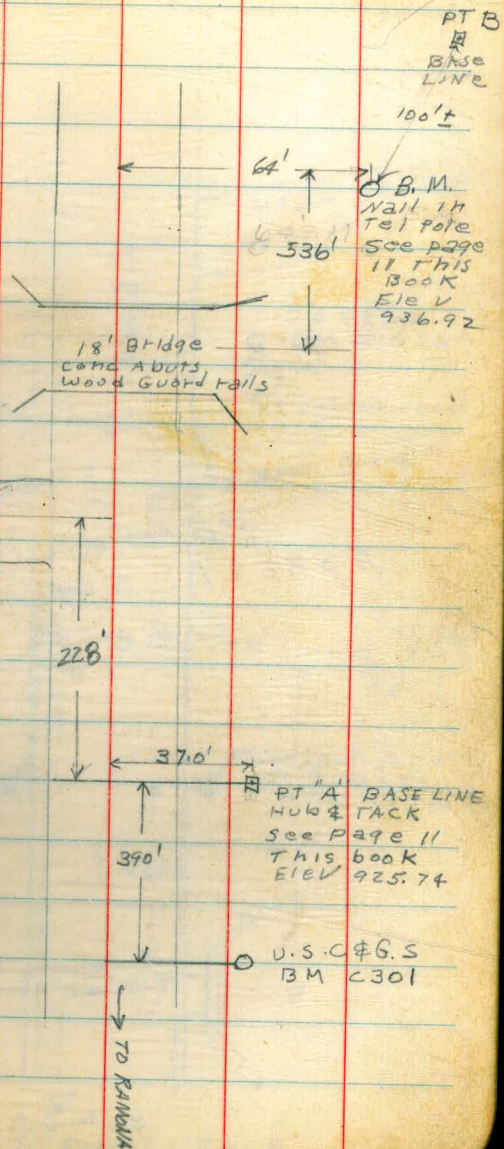


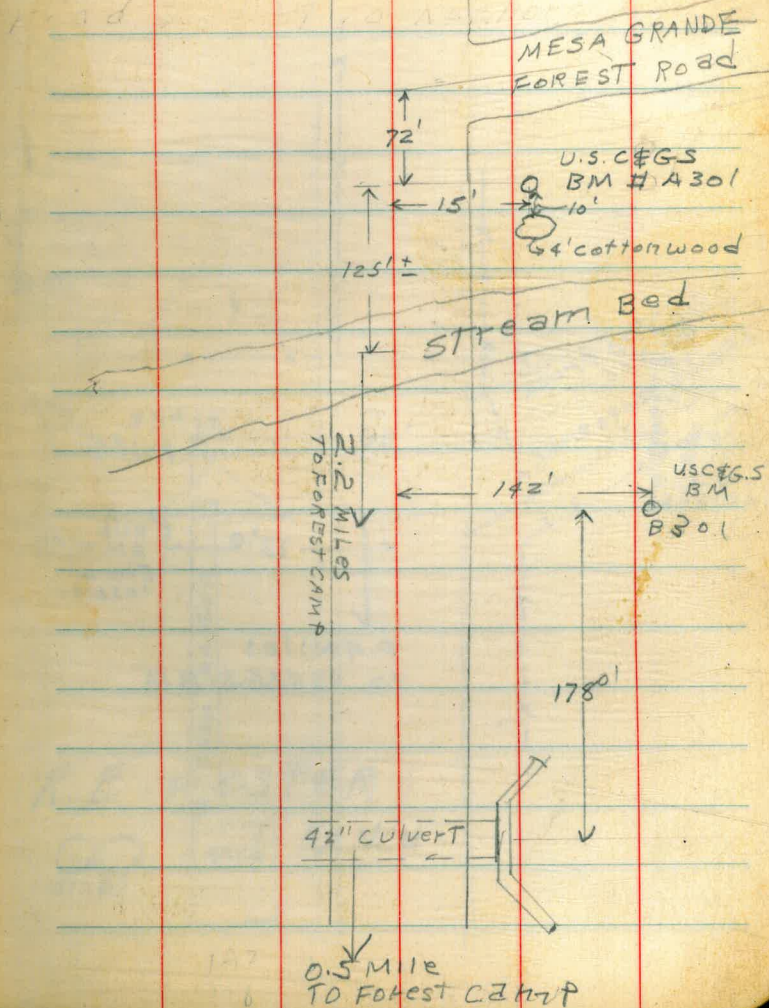
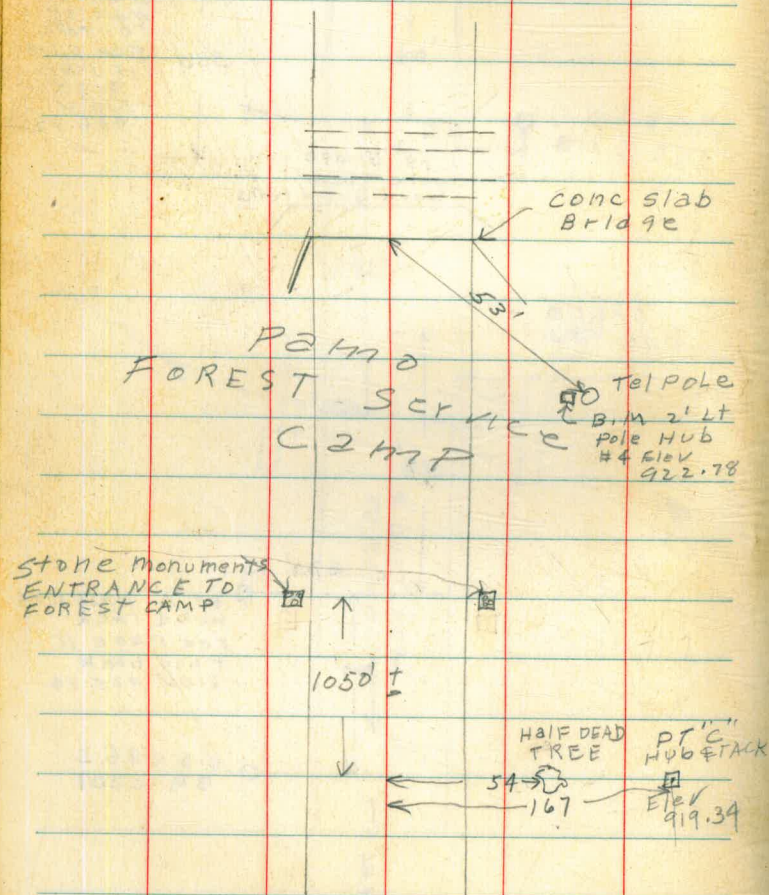
9-29-46
Clear-Hot

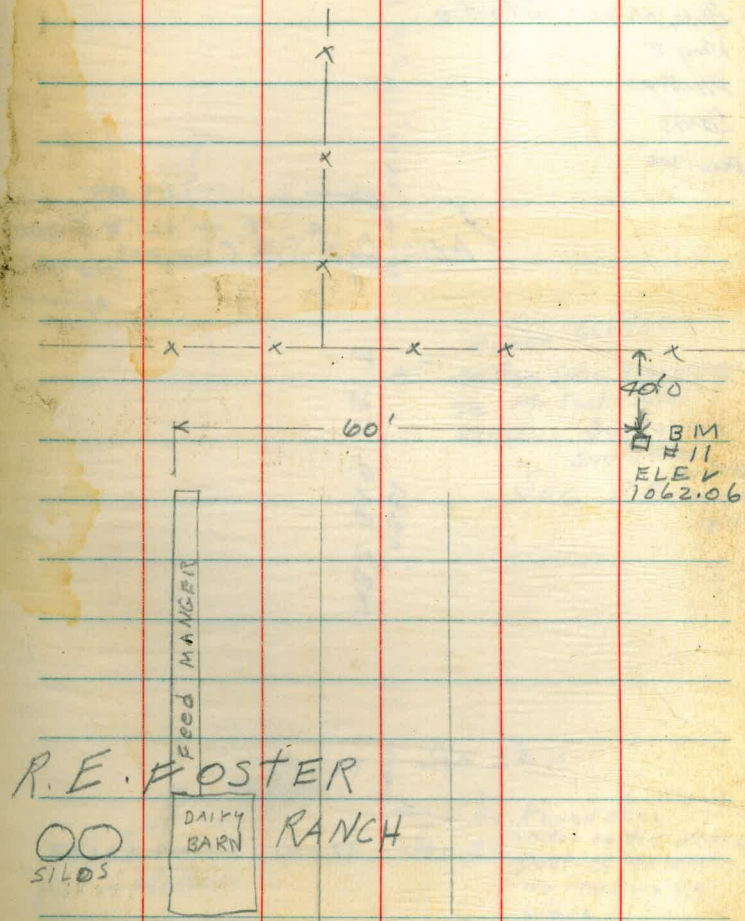
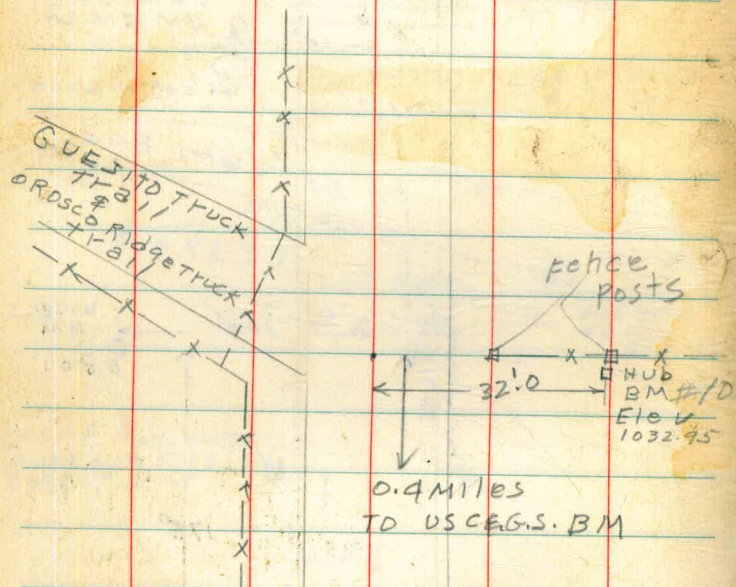
Nelson
KING
LEONARD

32

ORDSO
FIRE TRAIL







Survey to locate Damsites
 "A" "B" "C" on Santa Isabel Creek
 Pamo Valley. All Measurements by

Hill
 Bliss Notes Stadia

King T

Phillips

Davis

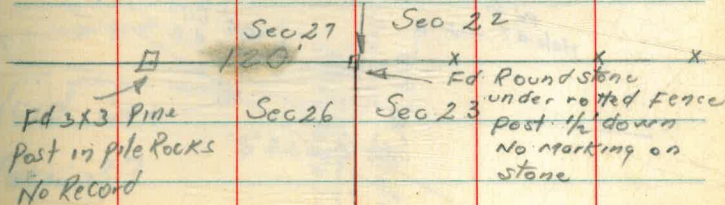
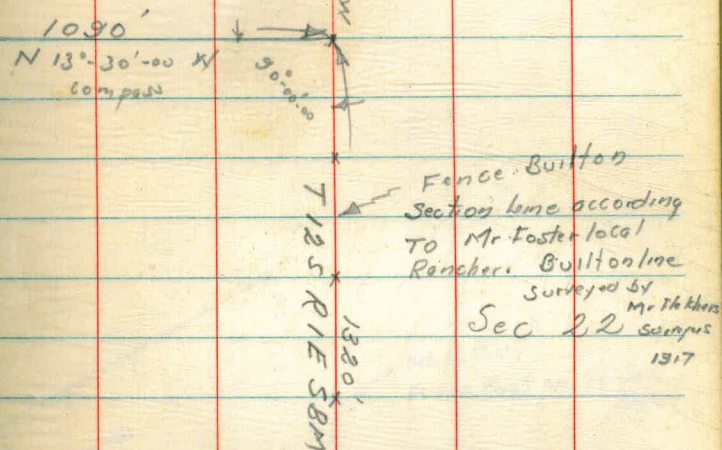
Dec 1906

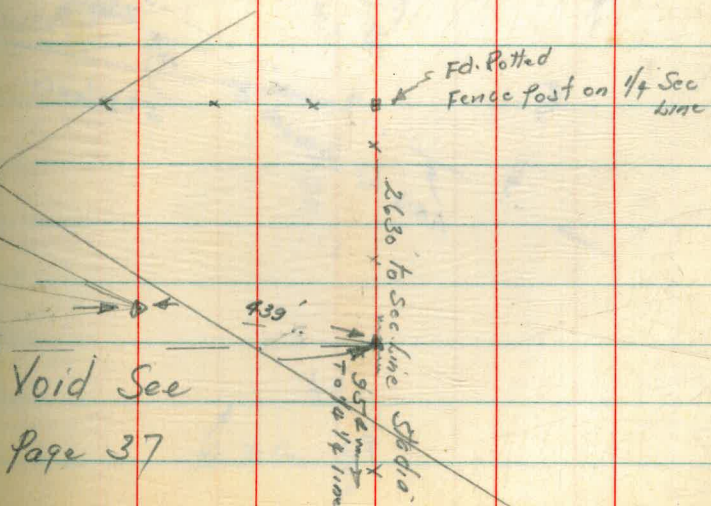
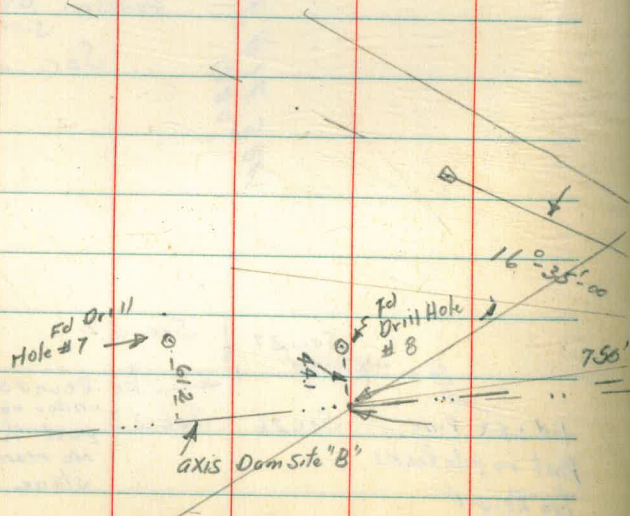
AXIS Dam Site "C"

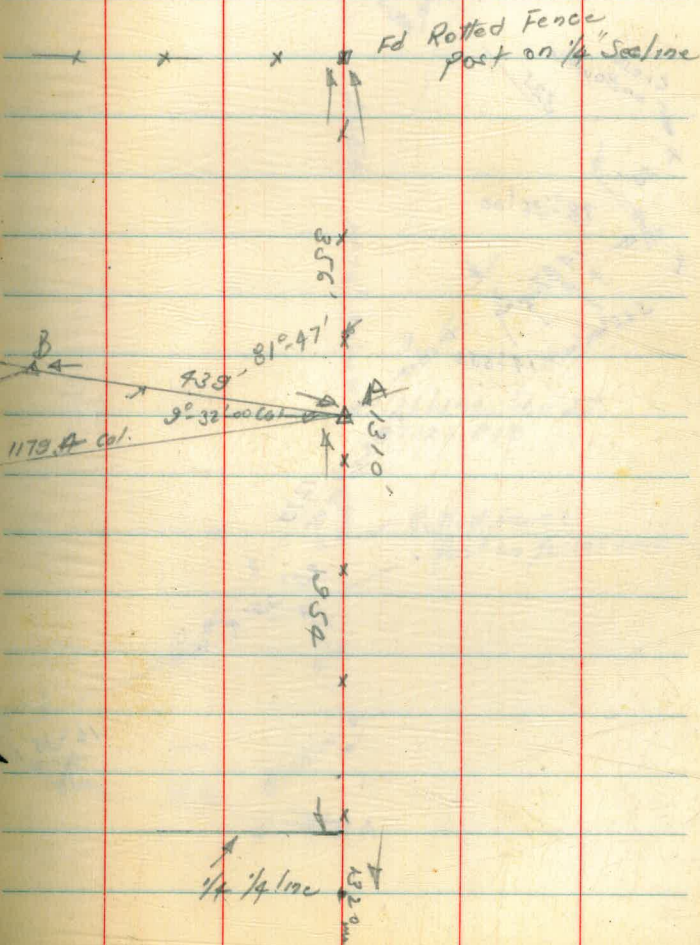
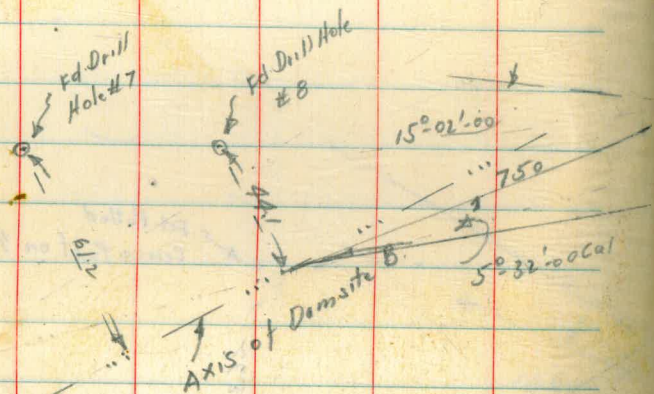
Bottom
 and center
 of Creek

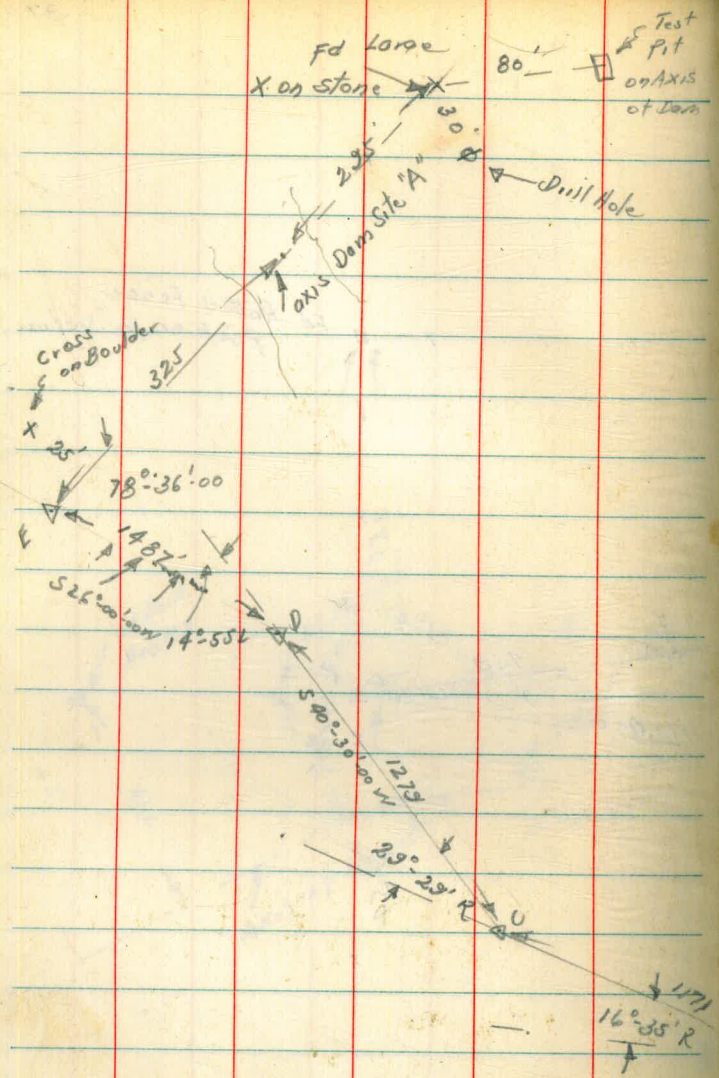
Continued Page 37

35.

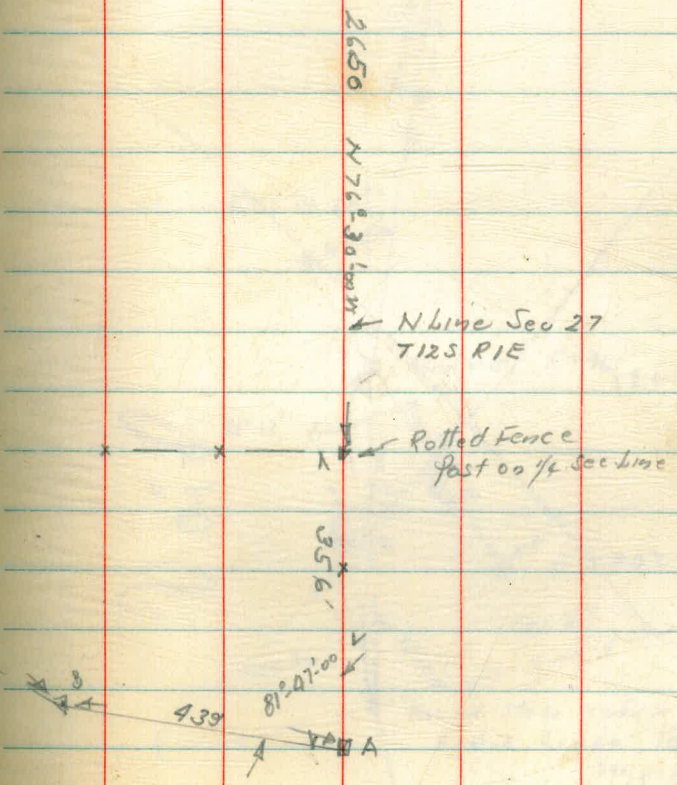








Looked For but 38
 Did not Find Sec Cor.



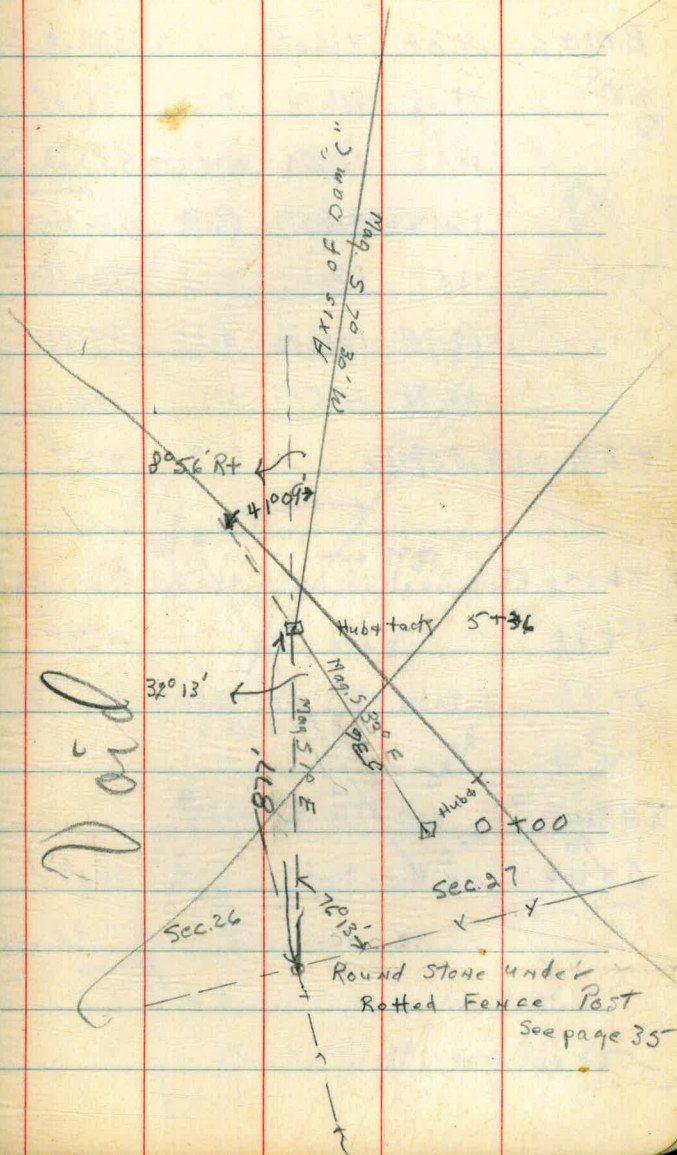
4-8-47 KING
NEINOW
WELTE

Stadia Survey ON Dam #c. - Palo Verde Valley

39

5+31

0+00



Stadia Survey for Dam site "C"

B.M. #6	4.08	946.27		937.19
	13.09	982.14	0.22	941.05
	12.93	966.60	0.47	953.67
	12.64	978.76	0.48	964.12
	12.58	991.31	0.03	978.79
	12.78	1069.86	0.23	991.08
	11.98	1015.53	0.31	1003.53
T. B.M. ON Hub 5+36		1.78		1013.75

These Elev. backed in by stadia from 5+36

5+36				1013.75
3+43	By stadia	$+7^{\circ}31' - 195' = 25.29$		1039.0

T at 3+43 Vert. $+3^{\circ}54' - 347' = +23.5$

0+00 ON Hub 4 tack. 1063

King
Nichols
EHR

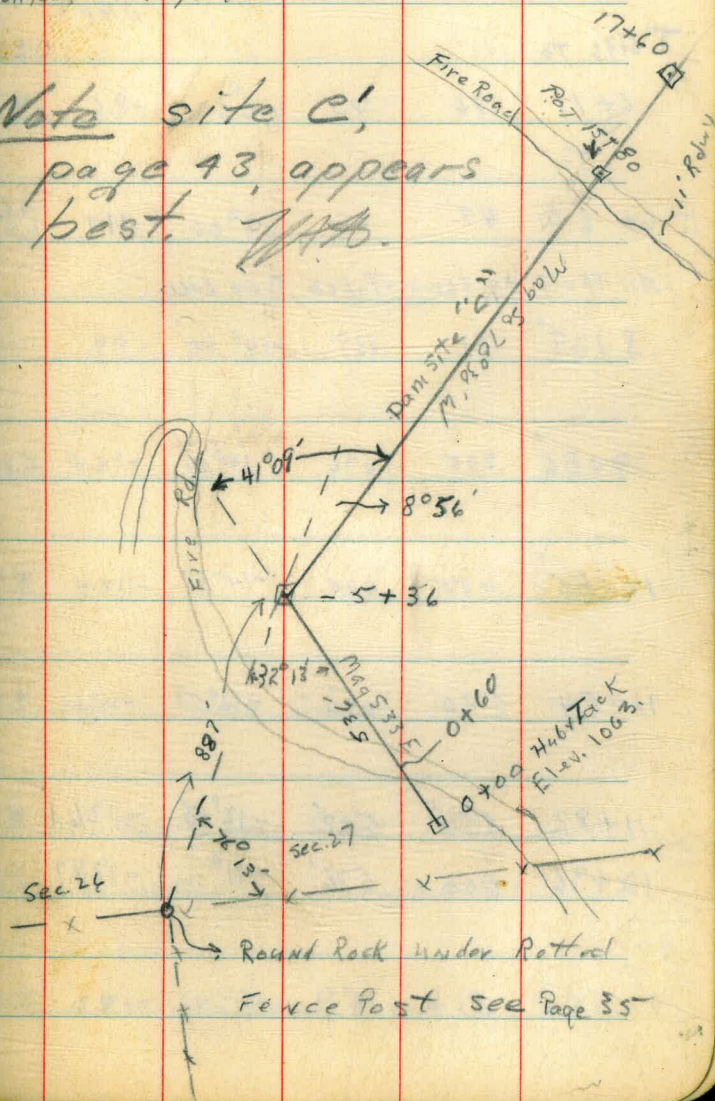
4-8-9-47

40

Pamo Valley

x on Rock - See Page 6

Note site C,
page 43, appears
best. ~~WAB.~~



Stadia Profile From Sta 5+36 to 17+60

ON Dam Site #C

	Dis	Corrected Dist	Vert	DIFF. IN Elev	HI. Rod	Elev ground	
T 5+36 To						1013.8	
6+11	76'	75'	-6.30'	-8.6	45.45	1005.2	
To							
T 6+60	49'	49'	0°00'	-11.1	41.25	994.1	
All shots on down - Taken From 6+60							
8+29'	182	169	-14°40'	-44.1	5.1 5.1	950.0	
9+36'	295	274	-14°51'	-72.8	5.1 5.1	921.3	
10+85'	455	425	-14°51'	-112.4	5.1 5.1	881.7	
11+54	520'	494	-12°57'	-113.6	5.1 5.1	880.5	North Bank River
11+82	550'	522	-12°56'	-126.1	5.1 5.1	868	North edge River
12+36	600'	576	-11°	-128.7	5.1 5.1	865.4	South " " IN water
14+58	818	798	-8°42'	-122	5.1 5.1	822.1	Toe So. BANK River

Sta	Dist	Cor D.	Vert L	DIFF IN EL.	Ht. Rod	Elev. ground	
15+69	935	909	-3°37'	-58.3	51 51	935.8	North Edge of Fire Road
B.M. 15+81	947		-3°24'	-56.7	51 51	937.4	Check on B.M. #6 937.19 1' from P.O.T. 15+80
17+60	1161	1100	+3°16'	+41.8	51 51	1035.9	Top Elev. on So. Side on Hub

Stadia Profile on Dam site # C'

Starting from Sta 5+36 on site C

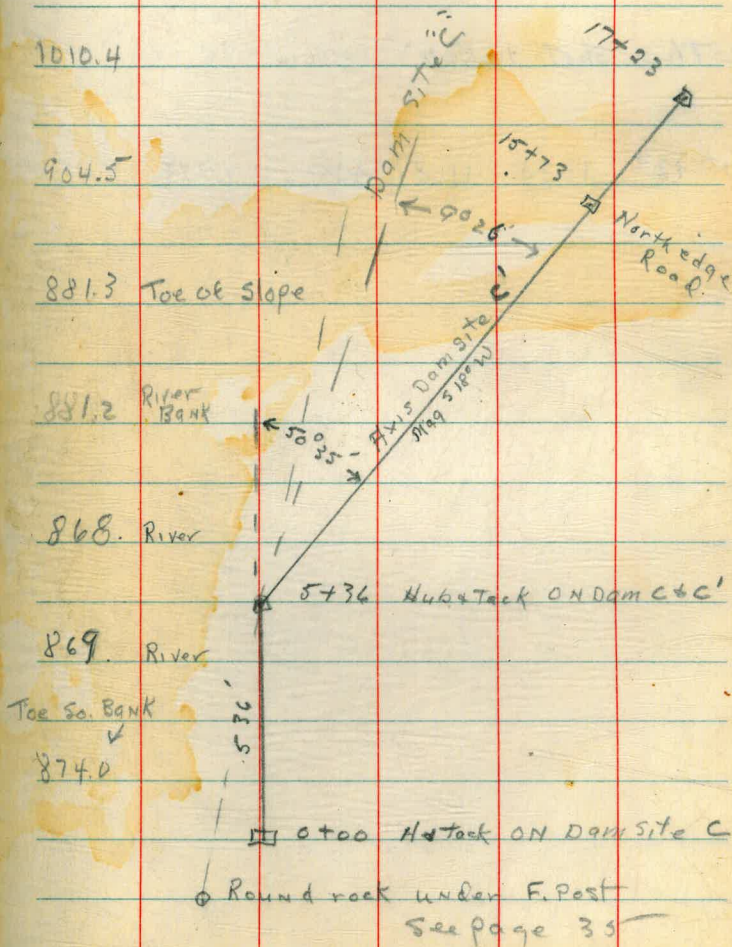
To	Dis.	Cor. Dis.	Vert. h.	HI. Red
5+36 T. B. M.				1013.75
5+93.7	57'	57'	0.0	5.0 8.4
9+46.9	780	359.9	-15°10'	-95.9 5.0 5.0
10+88.9	530	495.9	-14°35'	-129.1 5.0 5.0
11+86.3	625	593.3	-12°14'	129.2 5.0 5.0
12+16	Hand Level Shots			130
	taken from #86			
12+46				1120
14+74.4	902	881.4	-8°49'	176.4 5.0 5.0

KING
Nienow
Elite

4-11-47

43

Top Hub - Sta 5+36



Dis.	Corr. Dis.	Vert Δ	Diff in Elev	Ht Rod
75+732	984	980.2	-4°03'	69.4
				5.0 50

Elev. ground

941.0 Edge Road

This shot taken from 5+36 - Elev. 1013.8
To

17+23	1188	1187	+1°06'	22.8
				5.0 50

1033.2

Stadia Survey from Sta
15+73 on Dam Site C' To
Dam Site B. - Page 37

Pt. 4-5 = Dam site B $130^{\circ}48'$ Rt 262'

Pt 3-4 $29^{\circ}11'$ Lt. 286'

Pt. 2-3 $21^{\circ}22'$ Lt 552'

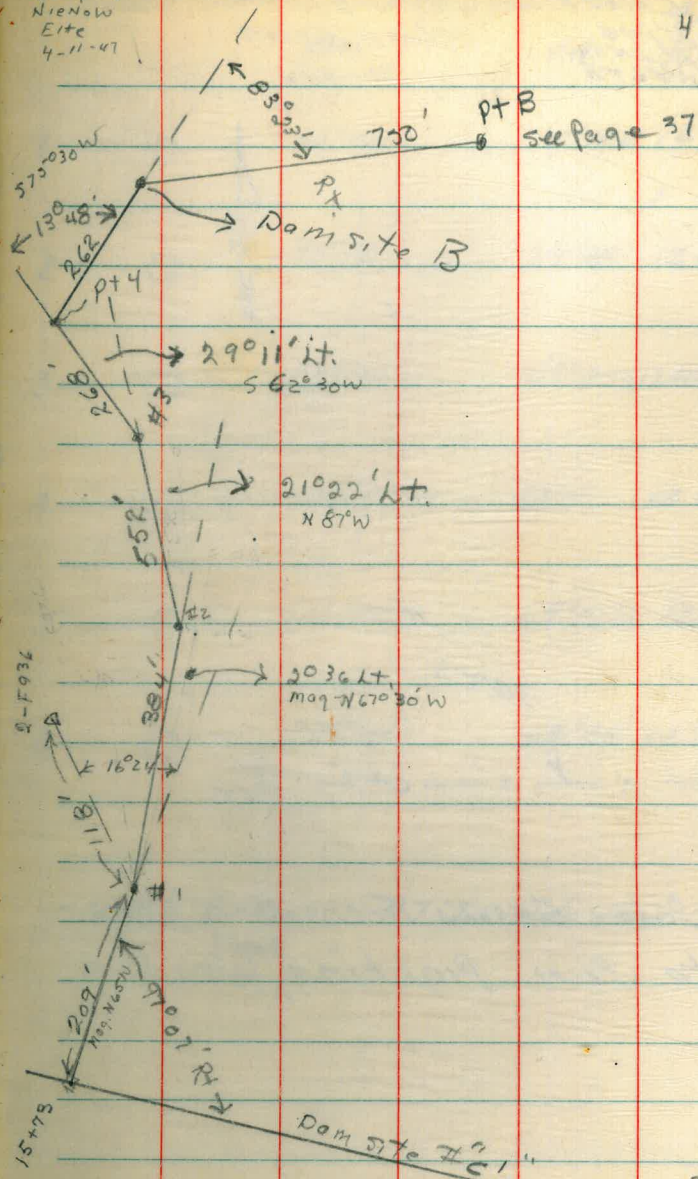
Pt 1-2 $90^{\circ}36'$ Lt 384'

Pt #1 $160^{\circ}24'$ 118' $2F936$
side station

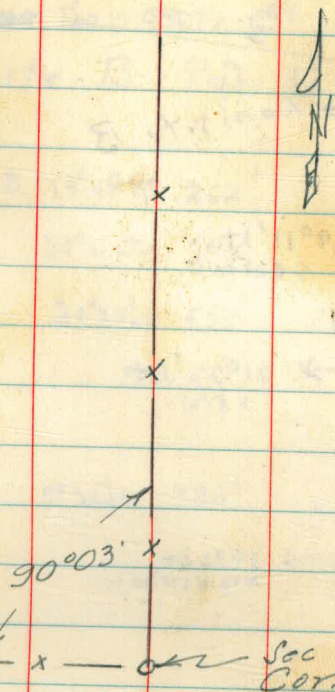
15+73 $99^{\circ}07'$ Rt 209' To Pt #1

KING
Nienow
Eite
4-11-47

45



46 RAINY APR. 12, 1947
 KING Clear Warm
 NICHOL
 WELTE



Solar Obsvns From E-W Fence
 to Sun Sighting ^{Sight} West

FAMO SOLAR OBSERVATIONS 46

		HOR. ANGLES	V.A.	TIME
1	○	46°26'	70°43'	12 41'26"
2	○	91°12'	69°48'	12 45'01"
3	○	133°52'30"	69°22'3"	12 48'38"
4	○	175°35'30"	68°51'	12 50'06"
5	○	216°32'	68°10'30"	12 53'00"
6	○	256°45'	68°05'	12 55'20"

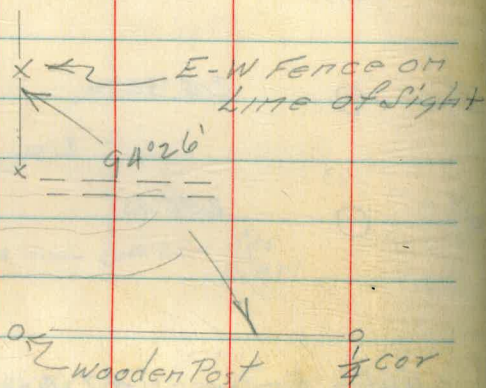
Watch Error 47 Seconds Slow

3°10' V.A.

Range tie to County Rd Survey

Detail tie to Cor.
123' → fence Cor
Stadia
Wooden Post

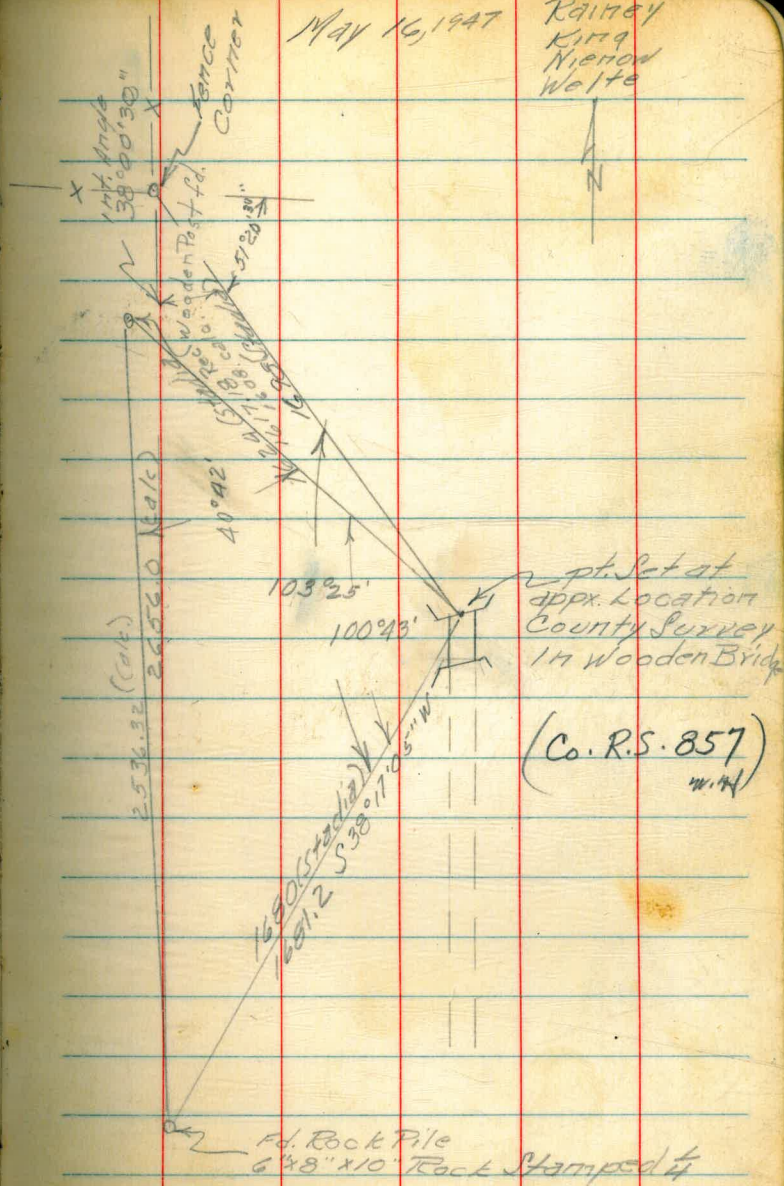
Wooden Post on line between
1/4 Cor + Fence Cor.
Fence Bears East
from Range line



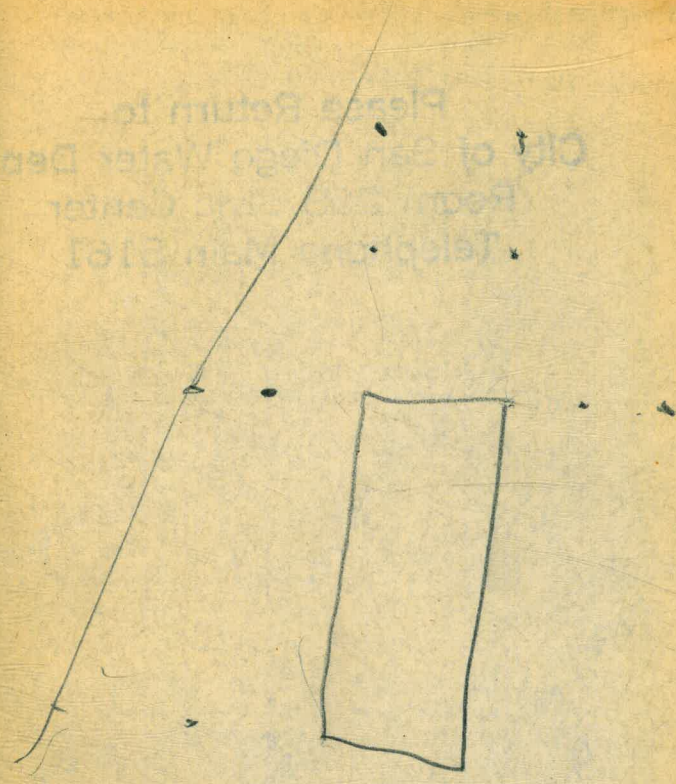
See County Survey Map
No. 857 Sheet #4

May 16, 1947

Rainey
King
Niemi
Waltz

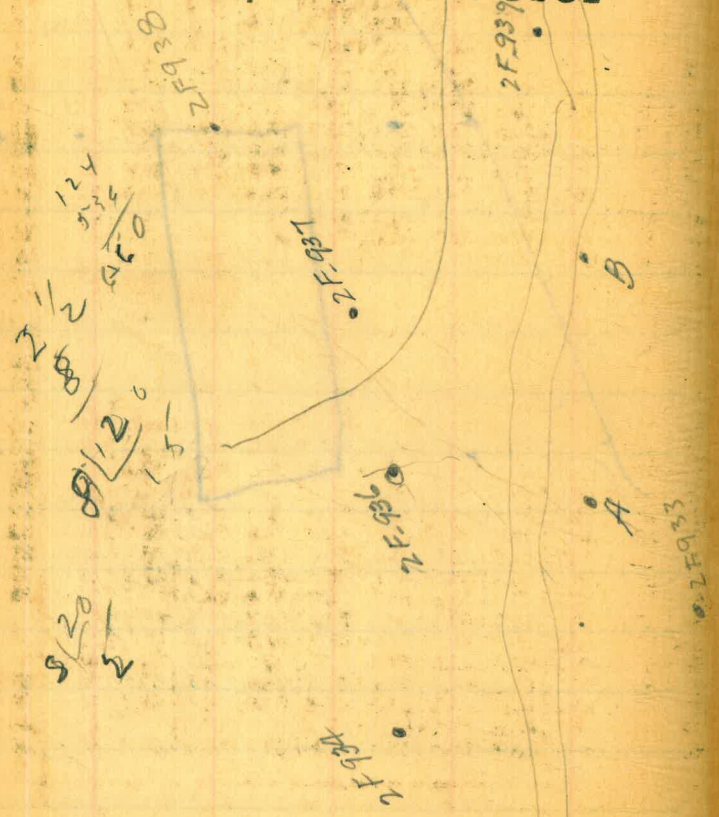


Please Return to
City of Chicago Water Dept
Post Office Box 1000
Telephone 312-311-1111



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Please Return to
 City of San Diego Water Dept.
 Room 268 Civic Center
 Telephone Main 5161



DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
 Roadway 16 feet wide. Side Slopes 1 on 1 1/2
 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.