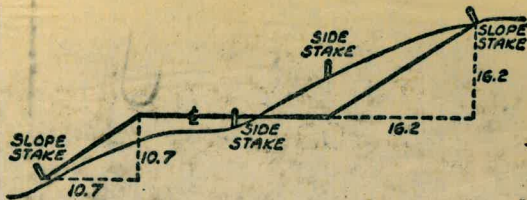


Handwritten text, possibly bleed-through from the reverse side of the page.

Main body of handwritten text, appearing as bleed-through from the reverse side of the page. The text is arranged in several paragraphs and is mostly illegible due to the dark background and low contrast.



Please Return to
 City of San Diego Water Dept.
 Room 903 Civic Center.

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.

MICROFILMED

JAN 16 1965

Suth. Conduit - Profile 179- ✓ 1-4

" " Alignment ⁰⁺⁰⁰⁻³⁰⁺⁸⁶ ✓ 5-8

" " Profile - 0+00 - ✓ 9-13

" " Alignment 46+34.51-143+29.19 ✓ ^{also} 14-17

" " New line Profile 223+51.93-233+28.22 ✓ 18-22

" " PROFILE 446+71.63 ^{also} ✓ 23-27

" " REALIGNMENT 396+47.2-446+83.17 ^{BK.} ✓ 23-27

" " PROFILE 462+26.33 - ^{469+06.35 BK} ^{469+03.07 AH} (38-40)

" " REALIGNMENT 2+51.42 - ^{5+40.24} 42-43

" " Profile from 0+00 ⁰⁺⁰⁰⁻¹⁺¹⁶ 45

Profile 24" PL 4' RS of Suth PL. 45

SUTH-CONDUIT Re-Alignment 0+50 to 2+51 ✓ 46

" " Re-Alignment 5+30.62-8+67.20 ✓ 47

" " " 110+00 to 113+90.22 ✓ 48

" " " 123+68.70 to 127+67.14 ^Y ✓ 49

" " " 13+00 to 15+37.04 ^{BK} ✓ 50

" " Soil Cond - 245-628 - ^{also} ✓ 51-52

" " Cross Section Pasture 462+29 to 53-54 ^{also} ✓

" " Nockony Dam X sections 0+00 to 10+96.65 AH ^{also} ✓ 55-56

" " New profile & Alignment 57-59 ^{also} ✓

" " SCHANKE RES. X-sect's 61-64 ^{also} ✓

Profile - V. Sections
Suth. S.V. Pk.

King 7-17-52 - Very Hot 100°

B.M		1943.90		1961.59
T.P.	1.13	1952.18	12.85	1951.05
T.P.	1.29	1941.65	11.82	1940.36
T.P.	0.54	1929.90	12.29	1929.56
T.P.	1.59	1918.60	12.89	1917.01
T.P.	1.11	1907.33	12.38	1906.22
T.P.	0.70	1895.53	12.50	1894.83
178450			11.7	1883.8
T.P.	0.440	1883.20	12.73	1882.80
T.P.	0.16	1870.89	12.47	1870.73
179400			12.6	1858.3
179407			17.0	1853.9
179445			19.3	1851.6
179478			6.0	1864.9
179484			10.1	1860.8

L.H. of E

R.H. of E

L.H. of E

$$\begin{array}{r} +9.5 \\ 40 \end{array}$$

$$\begin{array}{r} +8.5 \\ 35 \end{array}$$

$$\begin{array}{r} +3.6 \\ 11 \end{array}$$

$$\begin{array}{r} 71.8 \\ -6.0 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 73.8 \\ -10.0 \\ \hline 25 \end{array}$$

$$\begin{array}{r} -30.8 \\ 30 \end{array}$$

$$\begin{array}{r} -41 \\ 41 \end{array}$$

$$\begin{array}{r} 83.9 \\ +30.0 \\ \hline 40 \end{array}$$

$$\begin{array}{r} 79.4 \\ +25.0 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 86.9 \\ +130 \\ \hline 22 \end{array}$$

$$\begin{array}{r} 723 \\ +184 \\ \hline 34 \end{array}$$

$$\begin{array}{r} 1874.9 \\ +21 \\ \hline 45 \end{array}$$

$$\begin{array}{r} 71.6 \\ +28.0 \\ \hline 47 \end{array}$$

$$\begin{array}{r} 76.4 \\ +25.0 \\ \hline 38 \end{array}$$

$$\begin{array}{r} 57.2 \\ +5.6 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 64.6 \\ +13.0 \\ \hline 21 \end{array}$$

$$\begin{array}{r} 76.3 \\ +24.7 \\ \hline 47 \end{array}$$

$$\begin{array}{r} 44.9 \\ 0.0 \\ \hline 47 \end{array}$$

$$\begin{array}{r} 49.9 \\ -15.0 \\ \hline 22 \end{array}$$

$$\begin{array}{r} 1870.4 \\ +55 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 79.0 \\ +12.1 \\ \hline 35 \end{array}$$

$$\begin{array}{r} 79.0 \\ +14.1 \\ \hline 50 \end{array}$$

$$\begin{array}{r} 0.0 \\ 50 \end{array}$$

$$\begin{array}{r} 15.2 \\ 37 \end{array}$$

$$\begin{array}{r} 13.0 \\ 35 \end{array}$$

$$\begin{array}{r} 71.4 \\ +10.6 \\ \hline 28 \end{array}$$

$$\begin{array}{r} 73.8 \\ +13.0 \\ \hline 34 \end{array}$$

$$\begin{array}{r} 75.4 \\ +14.6 \\ \hline 50 \end{array}$$

Bottom creek

Profile
Suth-S.W. P.h.

KING 7-17-52

1870.89

T.P. 7.75

1878.64

0.00

1870.89

180+25 ✓

6.1

1872.5 ✓

180+50 ✓

4.2

1874.4 ✓

181+00 ✓

3.7

1874.9 ✓

181+50 ✓

5.4

1873.2 ✓

182+00 ✓

7.8

1870.8 ✓

182+50 ✓

11.1

1867.5 ✓

Top Stake

T.P. 182+50 0.00

1867.94 ✓

10.70

1867.94 ✓

183+00 ✓

4.9

1867.04 ✓

183+50 ✓

11.6

1856.3 ✓

L.T.O.F.F.

58.5
-14.0
50

61.5
-11.0
50

70.2
-2.3
12

64.9
-9.5
50

71.8
-2.6
17

69.2
-5.7
50

70.4
-2.8
30

68.0
-2.8
30

65.0
-2.5
30

60.3
-2.7
30

55.3
-1.0
30

R.T.O.F.F.

72.4
-0.1
47

77.0
+2.6
25

79.2
+4.8
50

78.1
+3.2
27

80.5
+5.6
50

76.6
+3.4
30

73.0
+3.0
30

70.5
+3.0
30

65.6
+2.6
30

59.0
+2.7
30

Profile - Suth - S. V. P. L.

RINGS 7-17-52

1867.94

J.P. 0.41 1855.05 ✓ 13.30 1854.64 ✓
 183477 ✓ 7.8 ✓ 1847.25

184404 ✓ 21.9 1833.2 ✓

184450 ✓ 10.0 ✓ 1845.0

184475 ✓ 9.9 ✓ 1845.2

P.O.Y. 185100.54 ✓ 12.7 42.4 ✓ 1842.4

185100.54 ✓
 T.P. 0.41 x 1.446 = 0.89 1843.29 ✓ 12.65 1842.40 ✓

185450 ✓ 9.9 ✓ 1833.4

185462 ✓ 12.9 ✓ 1830.4 ✓

L.F.

R.F.

17.2 11.9

46.2 49.5

+16.0 +16.3

+13.0 +16.3

Bottom Ravine 45' 33'

21' 31'

25.0 33.0 38.4 ✓

50.5

-28.0 -12.0 -6.6
 3.5 26 20'

+5.5
 30'

1003-2 33.2 40.2
 -42.0 -12.0 -5.0
 46 38 16

49.2
 + 4.0
 30'

1002.4 30.4 35.4 40.4
 -42.0 -12.0 -7.0 -2.0
 55 40 30 25'

44.7
 +2.3
 30'

22.4 26.6 26.9
 -11.0 -6.8 -6.5
 41 35 20

35.9 41.5
 +2.5 +8.1
 70 40

24.1 24.2
 -6.3 -6.2
 33 12

32.4 38.1
 +2.0 +7.7
 16 40

Profile South S.V.P.L.

KING 7-17-52

1000

4

T.P. 0.74 1843.29 ✓ 1831.59 ✓ 12.44 1830.85 ✓

LT. e RT. e

185789 ✓ 11.1 ✓ 1820.5 ✓

20.0
- 0.5
40'

28.1 33.5 35.1
+ 7.6 + 13.0 + 14.6
18' 30' 40'

T.P. 0.38 1819.11 ✓ 12.84 1818.73 ✓
186427 ✓ 5.3 CREEK BANK 1813.8 ✓

14.4
+ 0.6
40'

20.8 27.8 30.8
+ 7.0 + 14.0 + 17.0
20' 35' 41'

186438 ✓ 10.6 CREEK BOTTOM 1808.5 ✓

28.5
+ 2.0
42'

1807.5 1795.5
- 1.0 + 13.0
23' 40'

186446 ✓ 7.7 CREEK BANK 1811.4 ✓

23.4 17.1
+ 12.4 + 5.7
40' 20'

1803.9 7.8 7.9 17.4
- 1.5 - 3.6 - 3.5 + 6.0
24' 26' 32' 44'

186488 ✓ 7.6 1811.5 ✓

23.5 19.5
+ 12.0 + 8.0
40' 26'

7.5 6.6 21.5
- 4.0 - 4.9 + 10.0
24' 27' 40'

187413 ✓ 12.2 1806.9 CREEK BOTTOM ✓

22.9 17.9 12.4
+ 16.0 + 11.0 + 5.5
43' 28' 20'

19.9 26.3
+ 13.0 + 19.4
23' 43'

187440 ✓ 9.5 1809.6 ✓

10.6 9.6 5.4 8.6
+ 1.0 0.0 - 4.2 - 1.0
40' 35' 15' 7'

15.1 19.7
+ 5.5 + 10.1
27' 40'

T.P. 2.09 1810.37 ✓ 10.83 1808.38 ✓
T.B.M. 3.01 1807.36 ✓

Red H. Nail 188+50 - 5' Rt. in tree
✓ Jeffers
16 Jan 53
2 July 52 Pgs 1-4 Incl
checked by Red. V.L.C.

Re - Alignment - SOUTH. S.V. PL

KING 8-6-52

100°

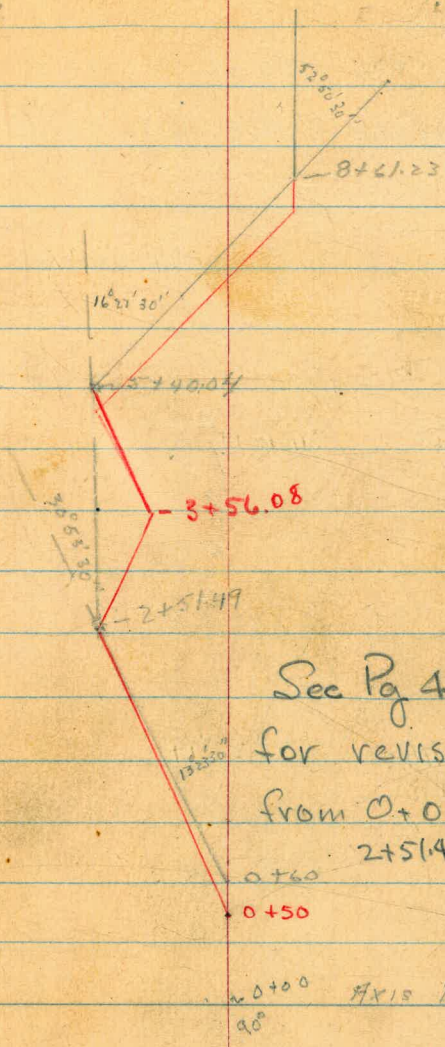
5

	Lt.	Rt.
8+61.23 A		52° 50' 30"
5+40.04 A		16° 27' 30" R
3+55.35		P.O.T.
2+51.49 A		30° 53' 30" R
0+60 A		13° 23' 30" Lt
0+00 =		
1634 D. ON AXIS OF DAM		

Alignment Rev. from 542± to 8+60± See Pg 42 & Pg 46 & 47

Alignment Revised See Pg 42 & Pg 46 & 47

Alignment Rev. from 0+50 to 2+51.49 Ah. See Pg 46 & 47



See Pg 46 for revision from 0+00 to 2+51.49 Ah.

Alignment
Suth. R.L.

King 8-7-52

101'

Note Sta. 13+00 to 15+37.83

Revised - See Pg 50, this book

15+37.83 A

27°38'30" R.

27°38'30" R.

15+37.83 - Ed. old original hub old sta. 15+26.28
27 27

13+22.93 A

34°10' Lt.

94.10' Lt.

13+22.93 New

10+96.65 A Hh =

38°20'30" Lt.

10+96.09 BK.

38°20'30" Lt.

10+96.65 - old hub

8+61.23 A

15' Lt.

8+87

8+87.23

old Road



Alignment - Suth. P.L.

King 8-7-52

Very hot.

7

L. R.

23+01.64 A

23° 17' 30" Lt.

21+96.00 A

44° 14' 30" Lt.

17+98.90 A

37° 02' 30" Lt.

15+37.83 A

23° 17' 30" Lt.

23+01.64 old hub

44° 14' 30" Lt.

21+96.00 old hub

37° 02' 30" Lt.

17+98.96 old hub

15+37.83

Beginning old Tote Rd
Average - about 16' wide



Alignment
Suth. Pipe line

Lt. Rt.

See BK 815 pg. 49
for continuation w.H.

30+86.25 Δ

38°14' Rt.

28+41.14 Δ

36°29'30" Rt.

27+36.15 Δ

14°19'30" Lt.

25+74.54 Δ

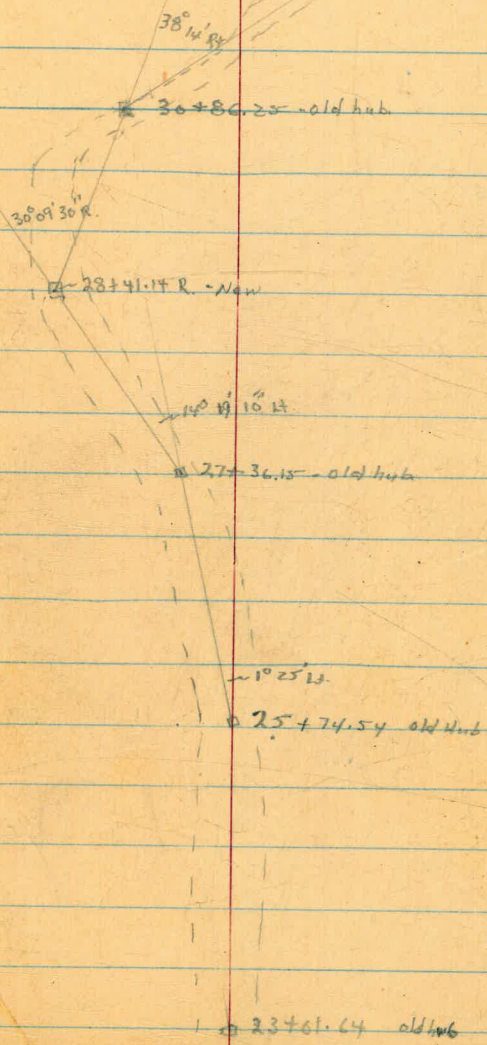
1°25' Lt.

23+01.64 Δ

King

8-7-52

8



Profile New Alignment
 0+00 - Suth. R.L. on 12340
 Axis of Dam.

King - B-7-52

Hot

9

T.B.M.	1.02 ✓	1946.59 ✓	1945.54 ✓
0+00 ✓		1.6	45.0
0+04 ✓		1.9	44.7
0+08 ✓		16.5	30.1
0+60.8		11.3	35.3
0+82		9.3	37.3
1+00		10.7	35.9
1+50		8.0	38.6
2+00		9.6	37.0
2+51.498		9.8	1936.8

Top casing Downstream Flt. # 11

Note: No x-sections taken 0+00 - 2+51.49
 Dam Contractor building Rds. etc.
 Profile is old original ground

Note: See Pg 43 for Profile.
 notes 0+00 to 2+51.49 vlc Jan '53

40.6
 41.8
 + 2.3
 17
 17

34.0
 - 2.4
 12

29.8
 7.0
 24

28.7
 8.1
 27

Suth. P.h.

1946.59 ✓

T.P.

3.02 ✓

1939.76 ✓

9.85 ✓

1936.74 ✓

0.49
G.M.M.

2+90. ✓

4.3

1935.5 ✓

T.P.

10.75 ✓

1949.99 ✓

0.52 ✓

1937.24 ✓

3+03 ✓

7.3

1942.7 ✓

+55 ✓

3.6

46.4 ✓
36.4

4+00 ✓

3.7

46.3 ✓
36.3

+24 ✓

7.1

42.9 ✓

T.P.

3.62 ✓

1940.77 ✓

12.84 ✓

1937.15 ✓

4+36 ✓

3.7

31.1 ✓

+50 ✓

4.0

36.8 ✓

8-7-52

King

10

L+

R+

49.5

+ 14.0
25

45.9

+ 10.4
18

34.1

- 7.4
10

27.2

- 8.3
25

53.7

+ 11.0
25

48.1

+ 5.4
12

34.9

- 7.8
7

34.9

- 18
22

26.1

- 16.6
30

62.6

+ 16.2
38

57.2

+ 10.8
24

51.8

+ 5.9
15

41.8

- 4.6
10

33.9

- 12.5
17

34.3

- 12.7
27

28.9

- 17.5
35

60.4

+ 14.1
29

55.0

+ 8.7
17

41.5

- 4.8
8

33.9

- 12.4
14

33.8

- 12.5
24

28.4

- 17.9
32

55.9

+ 13.0
23

50.5

+ 7.6
12

35.3

- 7.6
7

34.2

- 8.7
15

27.9

- 15.0
26

59.9

+ 20.8
25

52.4

21.8

+ 15.3

16

47.0

+ 9.9
10

35.1

- 2.0
4

34.2

- 2.9
13

26.9

- 10.2
26

55.6

+ 18.8
25

52.5

15.7

+ 9.9

10

46.7

+ 9.9
10

36.0

- 0.8
7

32.8

- 4.0
14

31.1

- 5.7
20

27.1

- 9.7
25

1940.77 ✓

4+64

1.4

39.4 ✓

4+74 ✓

+2.6

1943.4^{MC} ✓

5+06 ✓

5.4

35.4 ✓

5+1004 ✓

5.26

35.5 ✓

5+97 ✓

5.9

34.9 ✓

7.7 ✓

12.81 ✓

1951.94 ✓

1.64 ✓

1939.23 ✓

6+06 ✓

13.1

38.8 ✓

6+46.11 ✓

hub

2.86

49.9 ✓

6+77 ✓

8.2

43.7 ✓

7+00 ✓

5.0

46.1 ✓

Note: Alignment changed from Sta 8+67.20 to Sta 8+50 See Pgs 42-47

LT

48.3

34.0

RT

27.9

53.7

+14.3

24'

14'

+8.9

16'

16'

-5.4

26'

26'

54.0

49.0

36.8

34.3

27.4

+10.8

23'

+5.6

12'

-6.6

3'

-9.1

17'

-16.6

25'

54.1

48.7

+18.7+13.3

28'

43.3

+7.9

10'

41.0

+5.6

6'

35.0

-0.4

6'

25.4

-10.0

25'

51.2

45.7

+15.7

27'

41.0

+3.5

9'

34.5

-1.0

6'

24.9

-10.6

25'

46.5

41.6

+11.6

25'

+6.7

9'

34.2

-0.7

15'

27.5

-7.4

25'

49.8

+11.0

25'

43.1

+4.3

9'

35.4

-3.4

3'

33.4

-5.4

20'

31.0

-7.8

25'

60.5

+10.6

24'

56.5

+6.2

15'

42.1

-7.8

19'

33.6

-16.3

26'

56.4

+12.7

27'

52.1

+8.4

20'

46.7

+3.0

4'

36.9

-6.8

17'

32.5

-11.2

20'

30.4

-13.3

26'

+12.6

25'

+6.4

13'

-2.0

3'

-15.3

21'

-16.3

25'

Alignment Revised
See Pgs 42-47 →

Profile Suth. P.L.		P-7-52		200°		
			LT.		RT.	
7+42 ✓	1951.94 ✓	52.0	46.9	$\frac{+12.7}{27'}$ $\frac{+10.5}{20'}$	$\frac{-4.7}{11'}$ $\frac{-17.3}{26'}$ $\frac{-19.0}{30'}$	
7+51 ✓		3.3	48.6	$\frac{+10.3}{25'}$ $\frac{+5.8}{15'}$	$\frac{-10.8}{23'}$ $\frac{-24.2}{35'}$	
T.P.	4.44 ✓	1955.39 ✓	0.99 ✓	1950.95 ✓		
8+20 ✓		6.2	49.2	$\frac{+10.7}{25'}$	$\frac{-4.7}{10'}$ $\frac{-9.5}{25'}$	
8+61.23 ✓		8.5	46.9	$\frac{+15.0}{25'}$	$\frac{-0.5}{3'}$ $\frac{-11.7}{30'}$ $\frac{-16.5}{37'}$	
T.P.	6.64 ✓	1948.97 ✓	13.06 ✓	1942.33 ✓		
8+87 ✓		12.3	36.7	$\frac{+2.4}{35'}$	$\frac{0.0}{13'}$ $\frac{+7.3}{24'}$	
9+00 ✓		12.5	36.5	$\frac{+1.6}{25'}$	$\frac{0.0}{4'}$ $\frac{+6.6}{14'}$ $\frac{+6.7}{27'}$	
9+50 ✓		14.3	34.7	$\frac{+14.3}{26'}$ $\frac{-0.2}{7'}$	$\frac{+0.2}{8'}$ $\frac{+8.0}{18'}$ $\frac{+9.1}{25'}$	
10+00 ✓		13.4	35.6	$\frac{+10.3}{20'}$ $\frac{+0.6}{8'}$	$\frac{-0.2}{9'}$ $\frac{+6.0}{18'}$ $\frac{+5.0}{27'}$	

Suth. RL.

King 7-8-52

13

1948.97 ✓

10+50 ✓

8.2 ✓

40.8 ✓

LH

$$\begin{array}{r} +7.4 \\ 25 \\ \hline +5.4 \\ 20 \\ \hline 0.0 \\ 6 \end{array}$$

RT

$$\begin{array}{r} +0.2 \\ 7 \\ \hline +1.5 \\ 12 \\ \hline +2.2 \\ 25 \end{array}$$
10+9609 BR ✓
+24.65 H₁

4.31 ✓

44.7 ✓
on
hub
$$\begin{array}{r} +6.3 \\ 20 \\ \hline 0.0 \\ 8 \end{array}$$

$$\begin{array}{r} -0.5 \\ 17 \\ \hline -7.2 \\ 29 \end{array}$$

11+50 ✓

11.0 ✓

38.0 ✓

$$\begin{array}{r} +14.0 \\ 26 \\ \hline +13.1 \\ 16 \\ \hline +8.0 \\ 10 \end{array}$$

$$\begin{array}{r} -2.5 \\ 5 \\ \hline -2.4 \\ 14 \\ \hline -10.4 \\ 25 \\ \hline -15.2 \\ 30 \end{array}$$

T.P.

0.62 ✓

1937.07 ✓

12.52 ✓

1936.45 ✓

12+00 ✓

6.2 ✓

30.9 ✓

$$\begin{array}{r} +18.0 \\ 27 \\ \hline +12.2 \\ 21 \\ \hline +6.8 \\ 15 \end{array}$$

$$\begin{array}{r} -4.0 \\ 46 \end{array}$$

T.P.

3.72 ✓

1933.36 ✓

7.43 ✓

1929.64 ✓

Note: Alignment
revision sta 13+00 to 15+37.83
FB 825 Pg. 50.

12+50 ✓

+1.1 ✓

1934.5 ✓

$$\begin{array}{r} +21.7 \\ 27 \\ \hline +16.6 \\ 21 \\ \hline +5.4 \\ 7 \end{array}$$

$$\begin{array}{r} +4.2 \\ 6 \\ \hline -6.0 \\ 31 \\ \hline -11.8 \\ 35 \end{array}$$

13+00 ✓

4.9 ✓

28.5 ✓

$$\begin{array}{r} +12.9 \\ 28 \\ \hline +7.5 \\ 20 \\ \hline +3.5 \\ 19 \end{array}$$

$$\begin{array}{r} 0.0 \\ 30 \\ \hline -6.4 \\ 40 \end{array}$$
 Δ
13+27.93 ✓

5.64 ✓

28.4 ✓
28.3 ✓
on
hub
$$\begin{array}{r} +8.12 \\ 33 \\ \hline +2.9 \\ 25 \end{array}$$

$$\begin{array}{r} -0.5 \\ 21 \\ \hline -4.4 \\ 27 \end{array}$$

T.P.

5.04 ✓

1928.4 ✓
1928.32 ✓
on
hub
$$\begin{array}{r} +13.22 \\ 28 \end{array}$$

Pg's 9-13 INCL.
ck'd & Reduced
Carlson
31 Oct 52

cb
9/16/53
14/5/53

New Alignment
Suth. P. 12

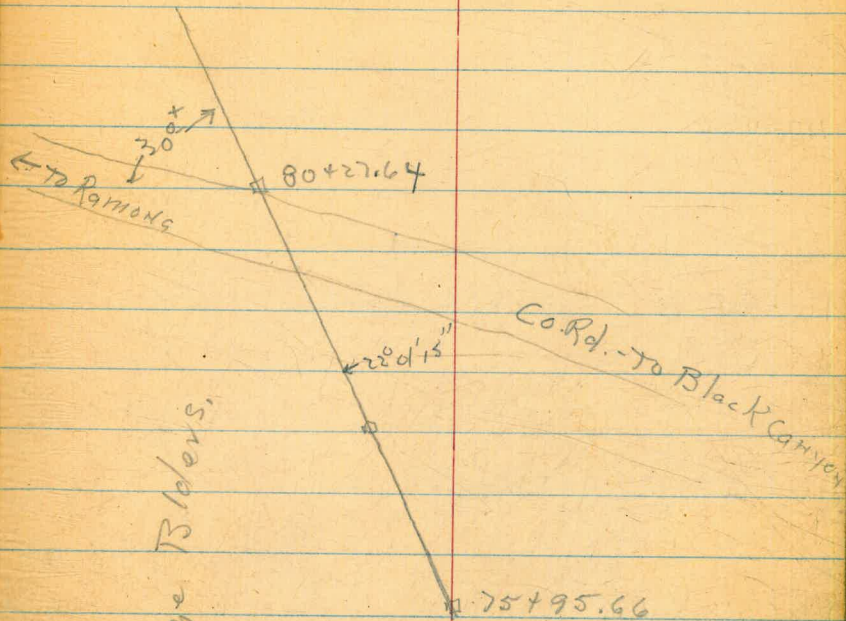
KINS 827-52

110°

14

Lt. Rt.

80+27.64 P.O.T. old hub west edge Co. Rd.



76+52.89 P.O.T. old hub

75+95.66 Δ 22° 01' 15"

75+22.07 P.O.T. old hub

64+34.51 P.O.T. old hub

See BK 828 P. 29

Suth. P.L.
Alignment

Lt. Rt.

117+42.69

23°34' R. old hub

113+90.22 Δ

9°48' Lt. old hub

112+04.32 Δ

24°36' Lt. old hub

100+59.76 P.O.T.

99+86.06 Δ

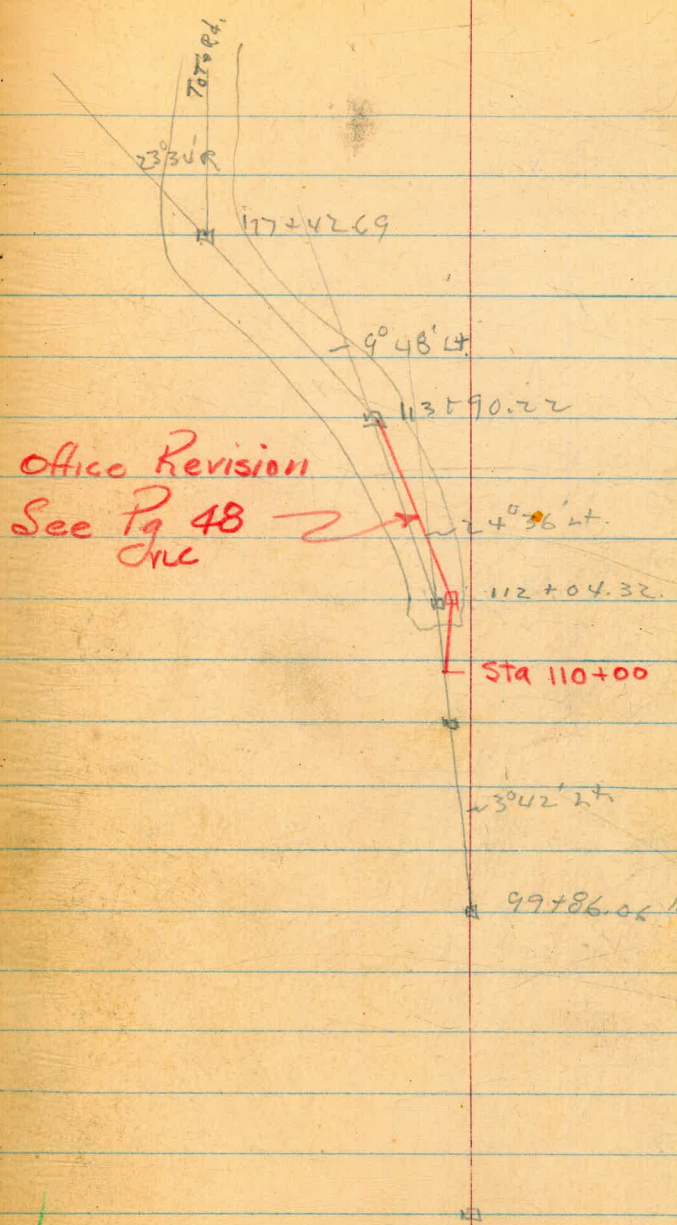
3°42' Lt. old hub

80+27.64 P.O.T.

Alignment
Revised from
Sta 110+00.00 to
Sta 113+90.22
At. See Pg
48 etc

King - 8-27-52

25



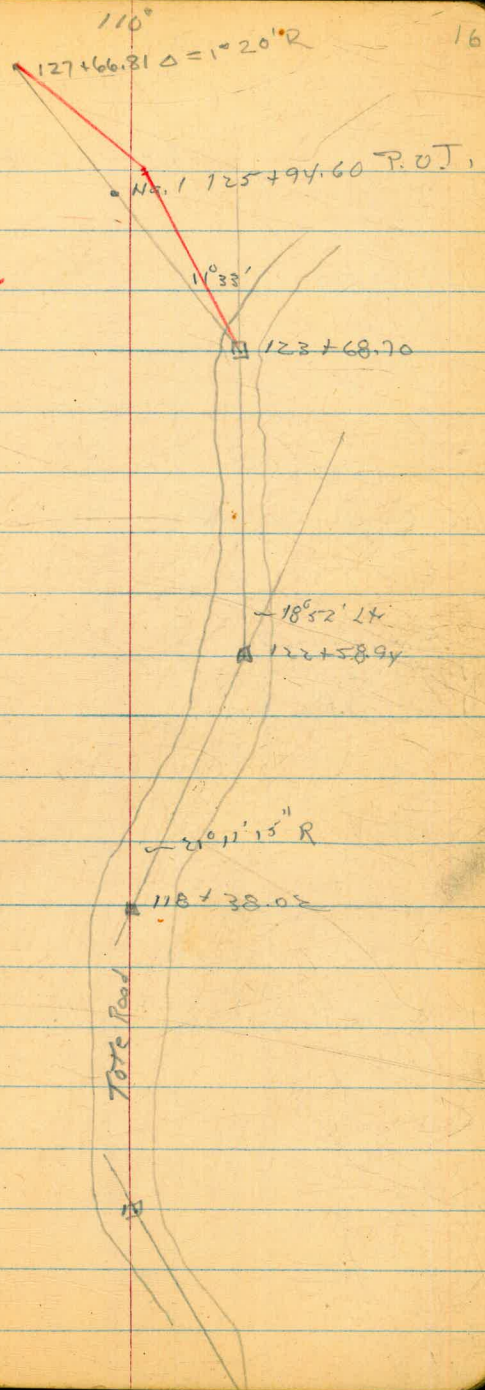
Suth. Pt.
Alignment

	Lt.	Rt.
127+66.81		1°20'00"
125+94.60	P.O.T	Nail
123+68.70	11°33' Lt.	old hub
122+58.94	18°52' Lt.	old hub
118+38.02	old hub.	21°11'15" R
117+42.69		

Alignment
Revised
See Pg
49_{enc}

King 8-27-52

Office
Revision
See Pg 49_{enc}



Syth. P.L.
Alignment - End No. Tunnel Portal

Lt. Rt.

144+40

Tunnel Portal

143+69.19

9° 23' 20" H

Equation
143+00 Ahead
130+25.53 BANK

127+66.81 A

10° 20' R

125+94.60

P.O.T.

Revised
See Pg
49
VLC

King - 8-27-52

17.

144+40 - Tunnel Portal

Draw

9° 23' 20"

143+69.19

2x2 hub & tack

143+00 Ahead =
130+25.53 BK

Draw

10° 20' R

127+66.81 A

Revised
See Pg
49
VLC

Sutherland P. L.
Re-Alignment. Sta. 223+51.95
To

EQUATION

233+37.48 Ah.

233+28.22 BK

R

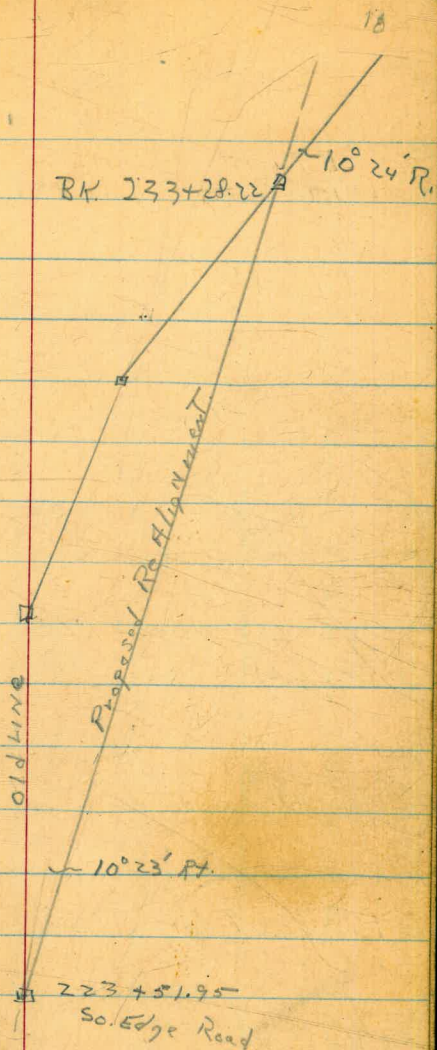
10°24' R

223+51.95

10°23' R+

King 8-29-52

105°



Profile
 Suth. P. 2. Realignment
 Sta 223+51.95 - 233+37.10
 H.I. - - E.L.

Sta	+	H.I.	E.L.
ON HUB B.M. 223+51.95	0.24	1885.83	1885.59
T.P.	0.36	1874.06	1873.70
224+05		5.1	68.96
224+22		2.0	72.06
224+41		6.1	67.96
T.P.	6.16	1874.95	1868.19
224+50		7.2	67.75
224+80		0.4	74.55
225+87		14.1	60.85

R. NS 8-28-52

20°

19

LT

RT

-1.4 / 43' +0.3 / 21' +0.4 / 7' -1.0 / 4' -0.6 / 17' -1.8 / 31'

+0.5 / 49' +0.6 / 28' -2.8 / 8' +4.8 / 10' +13.4 / 26' +12.4 / 49'

-7.6 / 48' -8.6 / 16' +4.6 / 14' +9.4 / 26' +9.8 / 38' +9.6 / 40'

-8.5 / 39' -11.9 / 31' -5.4 / 17' +5.0 / 9' +11.3 / 29' +11.3 / 40'

-13.5 / 36' -5.4 / 11' +6.0 / 11' +7.9 / 22' +13.7 / 31' +12.6 / 32' +13.0 / 40'

-17.4 / 39' -11.8 / 28' +3.3 / 15' +7.5 / 27' +4.6 / 35' +4.9 / 40'

-8.5 / 41' -4.4 / 22' +6.0 / 22' +15.9 / 42'

Profile
S. M. P. L. Reloc.

KING 8-29-52

Hot.

20

	HI		EL.	L.T.				R.T.		
225+65 ✓	187495 ✓	5.5 ✓	69.45 ✓	$\frac{-16.2}{40'}$	$\frac{-13.2}{37'}$	$\frac{-10.6}{32'}$	$\frac{-4.4}{15'}$	$\frac{+2.6}{13'}$	$\frac{+5.6}{31'}$	$\frac{+7.6}{42'}$
225+90 ✓		6.5 ✓	68.45 ✓	$\frac{-20.7}{40'}$	$\frac{-14.8}{34'}$	$\frac{-11.1}{28'}$	$\frac{-4.4}{13'}$	$\frac{+2.0}{12'}$	$\frac{+5.0}{32'}$	$\frac{+7.9}{45'}$
T.P.	3.66 ✓	1865.57 ✓	13.04 ✓	1961.91 ✓						
226+28 ✓		10.5	55.07 ✓	$\frac{-19.2}{40'}$	$\frac{-7.6}{25'}$	$\frac{-2.2}{18'}$		$\frac{+4.5}{14'}$	$\frac{+14.5}{40'}$	
226+50 ✓		25	63.07 ✓	$\frac{-21.9}{40'}$	$\frac{-9.8}{25'}$	$\frac{-5.8}{16'}$		$\frac{+4.0}{18'}$	$\frac{+8.6}{40'}$	
226+74 ✓		1.6	63.97 ✓	$\frac{-16.5}{41'}$	$\frac{-13.3}{36'}$	$\frac{-5.8}{20'}$		$\frac{+2.0}{14'}$	$\frac{+4.7}{40'}$	
227+09 ✓		13.3	52.27 ✓	$\frac{-10.6}{49'}$	$\frac{-4.8}{34'}$	$\frac{-2.1}{25'}$		$\frac{+2.2}{18'}$	$\frac{+3.5}{40'}$	
227+29 ✓		27.1	38.47 ✓	$\frac{-5.8}{42'}$	$\frac{-1.4}{30'}$	$\frac{-1.0}{15'}$		$\frac{+7.2}{17'}$	$\frac{+6.3}{27'}$	$\frac{+11.2}{36'}$ $\frac{+17.0}{47'}$
227+58 ✓		8.0	57.57 ✓	$\frac{-12.0}{40'}$	$\frac{-5.4}{17'}$	$\frac{-3.4}{10'}$		$\frac{+2.2}{12'}$	$\frac{+5.2}{40'}$	
T.P.	1.03 ✓	1853.51 ✓	13.09 ✓	1852.88 ✓						

Profile - Sutro Park
Relocation

8-28-52 KING

Hot
VERY HOT.

21

	+	H ¹ 1853.51 ✓	-	EL		L.T.	R.T.
228+50 ✓			12.9 ✓	40.61 ✓ 39.81 ✓		$\frac{-8.0}{40}$ $\frac{-7.0}{38}$ $\frac{-3.2}{19}$	$\frac{+7.0}{18}$ $\frac{+14}{30}$ $\frac{+19.4}{37}$ $\frac{+21.4}{40}$
228+80 ✓			5.8 ✓	47.71 ✓		$\frac{-9.0}{40}$ $\frac{-6.8}{30}$ $\frac{-3.4}{12}$	$\frac{+4.0}{12}$ $\frac{+10.6}{26}$ $\frac{+9.1}{46}$
229+50 ✓			9.3 ✓	44.21 ✓		$\frac{-9.0}{40}$ $\frac{-3.4}{14}$	$\frac{+22}{7}$ $\frac{+9.4}{18}$ $\frac{+8.9}{35}$
230+00 ✓			11.3 ✓	42.21 ✓		$\frac{-11.0}{40}$ $\frac{-10}{35}$ $\frac{-4.7}{16}$	$\frac{+8.6}{15}$ $\frac{+8.6}{33}$
T.P.	1.60 ✓	1842.16 ✓	12.95 ✓	1840.56 ✓		R.M. 230+15 2 FT. LEFT. RED KEEX	
230+50 ✓			3.7 ✓	38.56 ✓ ^{46VLL}		$\frac{-10.8}{40}$ $\frac{-3.4}{12}$	$\frac{+3.3}{7}$ $\frac{+8.9}{16}$ $\frac{+9.7}{37}$
231+00 ✓			9.6 ✓	32.56 ✓		$\frac{-12.0}{40}$ $\frac{-9.7}{27}$ $\frac{-5.4}{17}$	$\frac{+5.6}{14}$ $\frac{+11.6}{24}$ $\frac{+10.8}{43}$
T.P.	1.10 ✓	1831.36 ✓	11.90 ✓	1830.26 ✓		R.M. 1 FT. LEFT. 231+25 RED KEEX	
231+50 ✓			5.8 ✓	25.56 ✓		$\frac{-12.8}{40}$ $\frac{-3.4}{11}$	$\frac{+6.0}{15}$ $\frac{+15.8}{30}$ $\frac{+15.3}{49}$
T.P.	1.03 ✓	1820.67 ✓	11.72 ✓	1819.64 ✓		231+92 R/V 2' RT. RED KEEX	

Profile
Suth. Ph. Reloc.

RHS 8-28-52

212

VERY HOT

	H'		FL	LT	RT
232+00 ✓	1820.67 ✓	4.7 ✓	15.97 ✓	$-\frac{8.0}{40}$ $-\frac{4.5}{27}$ $-\frac{1.4}{14}$	$+\frac{1.6}{14}$ $+\frac{6.6}{26}$ $+\frac{12.0}{35}$ $+\frac{2.2}{43}$ $+\frac{2.2}{48}$
232+15 ✓		12.8 ✓	07.87 ✓	$-\frac{19}{40}$ $-\frac{0.9}{34}$ $+\frac{1.2}{22}$ $+\frac{2.0}{10}$	$+\frac{6.5}{15}$ $+\frac{10.2}{26}$ $+\frac{15.6}{34}$ $+\frac{21.0}{42}$
232+40 ✓		10.6 ✓	10.07 ✓	$-\frac{14.7}{40}$ $-\frac{5.4}{13}$	$+\frac{4.3}{15}$ $+\frac{9.9}{28}$ $+\frac{14.8}{40}$
TP	0.80 ✓	1808.22 ✓	13.35 ✓	1807.42 ✓	232+50 RX. REE REEL
+37.4 AH ✓ 232+28.2284		10.45 ✓	1797.77 ✓	GIN $-\frac{16.2}{40}$ $-\frac{9.0}{26}$ $-\frac{4.4}{13}$	$+\frac{3.4}{13}$ $+\frac{8.6}{26}$ $+\frac{14.0}{37}$ $+\frac{15.8}{40}$
CHECK TO OLD STA 233+00		6.55 ✓	1801.67 ✓	1801.67 ✓	

ch'kd 29/Jan/53 by MC

✓

PROFILE SUTH. P.L. REALIGNMENT

STA. 396+47.27 TO 446+83.17

WILLIAMS T 9-12-52 / COOL
 KEMP &
 MC HORNEY
 JACOBS

23

	+	H.I.	-	EL.
OLD B.C. 1408 B.M. 396+47.27	5.58 ✓	1462.48 ✓	1457.06 ✓	1456.90 ✓
NEW B.C. 2X2A 396+52.14 ✓			5.42 ✓	1457.06 ✓
397+00 ✓			5.1 ✓	57.9 ✓
397+50 ✓			4.8 ✓	57.7 ✓
398+00 ✓			4.8 ✓	57.7 ✓
398+50 ✓			5.6 ✓	56.9 ✓
NEW B.C. 2X2408 398+77.88 ✓			6.43 ✓	56.1 ✓
399+00 ✓			7.6 ✓	54.9 ✓
399+50 ✓			10.6 ✓	51.9 ✓
T.P.	290 ✓	1452.10 ✓	132.8 ✓	1449.20 ✓

Supersedes FB 816

Pg. 23-

PROFILE SOUTH P.L. REALIGNMENT

WILLIAMS T
KEMP &
McHONEY
JACOBS

9-12-52

COOL

24

	H.I. ✓ 1482.10	-	E.L.
400+00 ✓		4.0 ✓	48.1 ✓
400+50 ✓		4.6 ✓	47.5 ✓
400+74 ✓		5.2 ✓	46.9 ✓
401+00 ✓		7.4 ✓	44.7 ✓
401+00 ✓		6.5 ✓	45.6 ✓
401+50 ✓		4.8 ✓	47.3 ✓
401+84 ✓		4.7 ✓	47.4 ✓
402+00 ✓		4.7 ✓	47.4 ✓
402+50 ✓		5.5 ✓	46.6 ✓
403+00 ✓		6.1 ✓	46.0 ✓

HIGH WATER MARK SMALL CREEK

MID DIRT ROAD

PROFILE SOUTH P.L. REALIGNMENT

WILLIAMS T
KEMP &
Mc HORNEY
JACOBS

9-12-52

COOL

25.

	H.I. 143210 ✓	-	EL.	
403+50 ✓			5.9 ✓	46.2 ✓
404+00 ✓			6.5 ✓	45.6 ✓
404+50 ✓			7.0 ✓	45.1 ✓
T.P.	3.28 ✓	1448.51 ✓	6.87 ✓	144523 ✓
405+00 ✓			3.5 ✓	45.0 ✓
405+50 ✓			4.1 ✓	44.4 ✓
406+00 ✓			4.3 ✓	44.2 ✓
406+40 ✓			3.94 ✓	44.6 ✓
406+50 ✓			4.7 ✓	43.8 ✓
407+00 ✓			5.3 ✓	43.2 ✓

OLD HUB BY RP. 30' RT.

PROFILE SUTH. P.2. REALIGNMENT

WILLIAMS T
KEMP †
MC HORNEY
JACOBS

9-12-52

COOL

26.

	+	H.I.	-	EL	
407+50 ✓		1448.51 ✓	5.6 ✓		42.9 ✓
408+00			5.4 ✓		43.1 ✓
408+50			6.2 ✓		43.3 42.3 ✓
409+00 ✓			6.7 ✓		41.8 ✓
T.P.	3.19 ✓	1445.13 ✓	6.57 ✓	1441.94 ✓	
409+50 ✓			3.6 ✓		41.5 ✓
410+00 ✓			3.6 ✓		41.5 ✓
410+50 ✓			4.1 ✓		41.0 ✓
411+00 ✓			4.7 ✓		40.4 ✓
411+50 ✓			5.2 ✓		41.9 ✓

PROFILE SOUTH P.L. REALIGNMENT

WILLIAMS T
KEMP &
MC HORNEY
JACOBS

9-12-52

COOL

27.

	+	H.I. 1446.13 ✓	-	F.L.	
412+00	✓		5.5 ✓		39.6 ✓
412+50	✓		5.9 ✓		39.2 ✓
413+00	✓		6.7 ✓		38.4 ✓
413+50	✓		7.5 ✓		37.6 ✓
T. P.	372 ✓	1441.52 ✓	7.33 ✓	1437.80 ✓	
414+00	✓		4.4 ✓		37.1 ✓
414+50	✓		4.6 ✓		36.9 ✓
415+00	✓		4.7 ✓		36.8 ✓
415+50	✓		4.7 ✓		36.8 ✓
416+00	✓		5.3 ✓		36.2 ✓

PROFILE	SOUTH P.L.	REALIGNMENT	E.L.
	H.I. 1441.52 ✓	-	
416+50 ✓		5.2 ✓	36.3 ✓
417+00 ✓		6.3 ✓	35.2 ✓
417+10 ✓		8.2 ✓	33.3 ✓
417+15 ✓		7.3 ✓	34.2 ✓
417+21 ✓		6.2 ✓	35.3 ✓
417+46 ✓		6.3 ✓	35.2 ✓
417+50 ✓		8.3 ✓	33.2 ✓
T.P. ✓	7.07 ✓ 1440.35 ✓	8.24 ✓	1433.28 ✓
418+21 ✓		6.1 ✓	34.3 ✓
418+31 ✓		7.6 ✓	32.8 ✓

WILLIAMS T
 KEMP T
 Mc HONEY
 JACOBS

9-12-52

COOL

28.

HIGH WATER MARK SLOUGH

✓

PROFILE SOUTH. P.L. REALIGNMENT

WILLIAMS T
KEMP T
Mc HORNEY
JACOBS

9-12-52

COOL

29.

+	H.I. ✓ 1440.35	-	FL
419+00 ✓		7.8 ✓	32.6 ✓
419+36 ✓		8.0 ✓	32.4 ✓
419+50 ✓		5.4 ✓	35.0 ✓
419+50 ✓		3.74 ✓	36.6 ✓
419+70 ✓		4.2 ✓	36.2 ✓
420+00 ✓		5.3 ✓	35.1 ✓
420+50 ✓		5.5 ✓	34.9 ✓
421+00 ✓		5.8 ✓	34.6 ✓
421+50 ✓		5.9 ✓	34.5 ✓
422+00 ✓		5.9 ✓	34.5 ✓

RH NAILIN P.P. 16405
9' L.F.T.

PROFILE

SOUTH. P.L. REALIGNMENT

WILLIAMS T
KEMP †
Mc HORNEY
JACOBS

9-12-52

COOL

30

T. P.	T	HI 1440.35 ✓	- 5.84 ✓	FL. 1434.46 ✓
422+50 ✓	3.63 ✓	1438.09 ✓	5.84 ✓	34.4 ✓
423+00 ✓			4.2 ✓	33.9 ✓
423+50 ✓			4.5 ✓	33.6 ✓
424+00 ✓			5.0 ✓	33.1 ✓
424+50 ✓			5.2 ✓	32.9 ✓
425+00 ✓			5.7 ✓	32.4 ✓
425+50 ✓			6.0 ✓	32.1 ✓
426+00 ✓			6.3 ✓	31.8 ✓
426+50 ✓			6.2 ✓	31.9 ✓

PROFILE SOUTH. P.L. REALIGNMENT

WILLIAMS T
KEMP ↓
Mc HORNEY
JACOBS

9-12-52 COOL

31

	+	#.1. 1438.09 ✓	-	E.L. ✓
T.P.	3.62 ✓	✓ 1435.47 ✓	6.24 ✓	1431.85 ✓
427+00 ✓			4.4 ✓	31.1 ✓
427+50 ✓			4.8 ✓	30.7 ✓
428+00 ✓			4.8 ✓	30.7 ✓
428+50 ✓			4.9 ✓	30.6 ✓
B.C. 428+65.4 ✓			4.75 ✓	30.7 ✓
429+00 ✓			5.5 ✓	30.0 ✓
429+50 ✓			6.0 ✓	29.5 ✓
430+00 ✓			6.0 ✓	29.5 ✓
P.I. 430+0306 ✓			6.04 ✓	29.4 ✓

NEW B.C. IRI HUB

P.I. NEW IRI HUB

PROFILE SOUTH P.L. REALIGNMENT

WILLIAMS T
KEMP &
Mc HORNEY
JACOBS

9-12-52 COOL

32

	+	H.I. 1435.47 ✓	-	EL.
430+50 ✓			6.1 ✓	29.4 ✓
T.P.	4.37 ✓	1433.86 ✓	5.98 ✓	1429.49 ✓
431+00 ✓			4.4 ✓	29.5 ✓
E.C. 431+40.30 ✓			4.63 ✓	29.2 ✓
431+50 ✓			4.7 ✓	29.2 ✓
432+00 ✓			5.0 ✓	28.9 ✓
432+50 ✓			5.0 ✓	28.9 ✓
433+00 ✓			5.2 ✓	28.7 ✓
433+50 ✓			5.5 ✓	28.4 ✓
434+00 ✓			5.9 ✓	28.0 ✓

EG. NEW IRI HUB



PROFILE SOUTH, P.L. REALIGNMENT

WILLIAMS T
KEMP &
Mc HONEY
JACOBS

9-12-52

C002

33

	+	HI. 1433.86 ✓	-	FL	
434+50 ✓			6.4 ✓		27.5 ✓
T.P. ✓	410 ✓	1431.72 ✓	6.24 ✓	1427.62 ✓	
435+00 ✓			4.4 ✓		27.3 ✓
435+50 ✓			4.5 ✓		27.2 ✓
436+00 ✓			4.7 ✓		27.0 ✓
436+50 ✓			5.0 ✓		26.7 ✓
437+00 ✓			5.0 ✓		26.7 ✓
437+50 ✓			5.5 ✓		26.2 ✓
438+00 ✓			5.7 ✓		26.0 ✓
438+50 ✓			5.9 ✓		25.8 ✓

PROFILE SUTH. P.L. REALIGNMENT

WILLIAMS T
KEMP +
MC HORNEY
JACOBS

9-12-52 COOL

34

T.P.	+	H ¹ 1421.72	-	EL.
	4.33	1430.16	5.88	1425.84
428+50	✓			4.3 ✓ 25.9 ✓
438+63	✓			6.6 ✓ 23.6 ✓
438+68	✓			4.5 ✓ 25.7 ✓
429+00	✓			4.5 ✓ 25.7 ✓
439+50	✓			4.8 ✓ 25.4 ✓
440+00	✓			4.8 ✓ 25.4 ✓
440+50	✓			4.9 ✓ 25.3 ✓
441+00	✓			5.0 ✓ 25.2 ✓
441+50	✓			4.9 ✓ 25.3 ✓

PROFILE

SOUTH P.2. REALIGNMENT

WILLIAMS
KEMP
Mc HORNEY
JACOBS

9-12-52

COOL

35.

	+	14.1. 1430.16 ✓	-	EL.	
442+00 ✓			6.3 ✓		24.9 ✓
T.P.	8.71 ✓	1434.15 ✓	4.72 ✓	1425.44 ✓	
442+09 ✓			8.9 ✓		25.3 ✓
442+14 ✓			10.9 ✓		23.3 ✓
442+21 ✓			8.7 ✓		25.5 ✓
442+50 ✓			9.0 ✓		25.2 ✓
443+00 ✓			10.1 ✓		24.1 ✓
443+50 ✓			9.8 ✓		24.4 ✓
443+66 ✓			10.8 ✓		23.4 ✓
B. C. 443+75.55 ✓			10.59 ✓	1428.58	23.6 ✓

B. C. NEW 1X1 HUB
443+75.55 ✓

PROFILE SOUTH.P.L. REALIGNMENT

WILLIAMS T
KEMP T
Mc HORNEY
JACOBS

9-12-52

COOL

36.

	+	M.I. 1434.15 ✓	-	EL.
443+89 ✓			9.3 ✓	24.9 ✓
444+00 ✓			4.7 ✓	29.5 ✓
444+04 ✓			4.3 ✓	29.9 ✓
444+20 ✓			4.3 ✓	29.9 ✓
444+35 ✓			6.3 ✓	27.9 ✓
444+50 ✓			5.0 ✓	29.2 ✓
445+02 ✓			5.3 ✓	28.9 ✓
P.I. 445+2990 ✓			6.10 ✓	28.1 ✓
445+50 ✓			7.6 ✓	26.6 ✓
446+08 ✓			8.5 ✓	25.7 ✓

EDGE OF OIL EAST
SEVENTH STREET

EDGE OF OIL WEST
SEVENTH ST.

P.I. OLD 2X2 HUB
445+2990



PROFILE

SOUTH P.L. REALIGNMENT

WILLIAMS T
KEMP
Mc HORNEY
JACOBS

9-12-52

COOL

37

+ H.I. 1434.15 - EL

-446+50

✓

8.5

✓

25.7

✓

BC
446+8317 BK
446+71.63 AH

✓

8.3

✓

25.9

✓

FG. GN.

446+8317 BK = 446+71.63 AH

CHECK TO
COUNTY B.M.
N.W. CORNER BRIDGE
AT SEVEN

✓

3.56

✓

1430.59

✓

1430.55

✓

PROFILE SUTH. P.L. REALIGNMENT
 FROM STA. 462+26.33 TO STA. 469+03.09 AH.
 EL.

WILLIAMS &
 McHORNEY &
 JACOBS
 KEMP

9-12-52

38

WARM

B.M.	+	HI	-	B.M.
	0.86 ✓	1421.62 ✓		1420.76 ✓
462+26.33 R.H. NAIL Δ ✓			3.8 ✓	17.8 ✓
462+5.0 ✓			4.2 ✓	17.4 ✓
463+00 ✓			4.7 ✓	16.9 ✓
463+50 ✓			5.0 ✓	16.6 ✓
464+00 ✓			5.0 ✓	16.6 ✓
464+27.70 R.H. NAIL Δ ✓			3.2 ✓	18.4 ✓
T.P.	6.67 ✓	1424.81 ✓	7 ✓	1418.14 ✓
464+50 ✓			4.7 ✓	20.1 ✓
464+70 ✓			5.1 ✓	19.7 ✓

S.W. CORNER CON. SPILLWAY
 AT 10TH ST.

Supersedes F.B. 816 Pg 32-33
 V.L.C. - 6 Feb 53

Alignment Revised
 Slightly from 462+26± to
 468+50± No new profile
 notes taken

V.L.C. 6 Feb 53

PROFILE SOUTH P.L. REALIGNMENT

WILLIAMS X
MCHORNEY &
JACOBS
KEMP

9-12-52

39

WARM

	+	HI 1424.81 ✓	-	EL.
7 464	464+76 ✓		6.7 ✓	18.1 ✓
46 R. 46	464+84 ✓		4.3 ✓	20.5 ✓
40	465+00 ✓		4.4 ✓	20.4 ✓
4	465+50 ✓		4.7 ✓	20.1 ✓
4	466+00 ✓		8.6 ✓	16.2 ✓
4	466+25		4.6 ✓	20.2 ✓
40 R. 4	466+48		4.3 ✓	20.5 ✓
7	466+61		7.9 ✓	16.9 ✓
4	466+71 ✓		4.6 ✓	20.2 ✓
4	466+81 ✓		5.0 ✓	19.8 ✓

✓

PROFILE SUT H. P.L. REALIGNMENT

WILLIAMS X
MCHORNEY &
JACOBS
KEMP

9-11-52
WARM

40

	+	HI 1424.81	-	EL.
466+25 ✓			7.7 ✓	17.1 ✓
467+04.73 ✓ R.H. NAIL Δ			10.2 ✓	14.6 ✓
467+50 ✓			9.4 ✓	15.4 ✓
468+00 ✓			9.0 ✓	15.8 ✓
468+50 ✓			9.7 ✓	15.1 ✓
R.H. NAIL Δ ✓ 469+06.35 BX = 469+03.09 AH			9.5 ✓	15.3 ✓
90° L OPP. STA. 466+00			15.4 ✓	9.4 ✓
90° L OPP. STA. 466+00			11.6 ✓	13.2 ✓
CHECK TO B.M. S.W. COR. CON. SPILLWAY AT 10TH			4.07 ✓	1420.74 ✓ 1420.76 ✓

PRESENT WATER LINE - RES.

9-12-52

HIGH WATER LINE - RES.

✓

+

H

-

EL

New Alignment SOUTH PL

2+51⁴⁹ to 5+40⁰⁴
BK Ah

5+40⁰⁴ Ah = 5+41²³ BK 21°05'34" RT

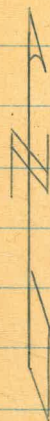
3+56⁰⁸ 12°52'48" LT

2+51⁴⁹ 39°08'14" RT

West
Williams
Martell
Varonakis

42

2 Jan 53



21°05'34"
5+40⁰⁴

185.65

12°52'48"

3+56⁰⁸

2+51⁴⁹

39°08'14"

104.39

12°52'48"

0+60³

Revised

See Pg. 46

0+00

Dam Axis



Q Profile South Pt
0+00 to 5+41.73 New Aling

West
Williams
Martell
Varenfork

X-Sections off H.I.
Rev West
VLC 6 Feb 53
2 Jan 53

43

Sta	+	H.I.	-	Elev
	11.21	1951.49		1940.28
0+00	✓		8.7	42.8
	8.36	1959.67	0.18	1951.31
0+16	✓		6.3	53.4
+50	✓		3.7	56.0
+58	✓		3.6	56.1
	3.17	1950.50	12.34	1947.33
+84	✓		11.7	38.8
	5.87	1944.25	12.12	1938.38
1+00	✓		8.6	35.7
+50	✓		10.0	34.3
+88	✓		5.8	38.5
2+00	✓		7.0	37.3
+20	✓		6.4	37.9
+51.42	✓		7.50	36.8
3+00	✓		9.4	34.9
+50	✓		9.0	35.3
+56	✓		9.9	34.4

B.M. on Arch between 10+11

$\frac{2.9}{18^{\circ}}$ $\frac{3.7}{11^{\circ}11'}$ $\frac{3.7}{11^{\circ}12'}$ $\frac{4.6}{27^{\circ}11'}$

Note:

$\frac{1.4}{19'}$ $\frac{1.8}{12^{\circ}}$ $\frac{9.5}{27^{\circ}11'}$

Profile notes

$\frac{0.7}{20'}$ $\frac{8.1}{25^{\circ}11'}$ on const road

from 0+50 to

$\frac{0.0}{21.21}$ $\frac{7.2}{20^{\circ}11'}$ on edge of road
Top of Fill

2+51.49 arc

for unrevised

$\frac{7.5}{15.2}$ $\frac{16.6}{20^{\circ}11'}$ Bot. of road fill

alignment. See

pg 46 for new

Alignment.

VLC Jan 53

$\frac{7.6}{16.21}$ $\frac{15.7}{25^{\circ}11'}$

$\frac{7.2}{34.21}$ $\frac{13.6}{25^{\circ}11'}$

Bot. of Bank

$\frac{2.2}{36.21}$ $\frac{8.6}{18^{\circ}11'}$ Top of Bank

$\frac{0.0}{42.21}$ $\frac{2.8}{10.21}$ $\frac{9.7}{15'}$ $\frac{13.4}{20}$

$\frac{5.6}{12.21}$ $\frac{10.2}{10^{\circ}11'}$

$\frac{4.8}{10.21}$ $\frac{9.6}{15^{\circ}}$

$\frac{2.0}{7'}$ $\frac{5.5}{6'}$ $\frac{9.8}{12^{\circ}11'}$ $\frac{13.4}{17}$

$\frac{3.1}{4^{\circ}}$ $\frac{10^{\circ}}{13}$ $\frac{16^{\circ}}{20}$



X-Sects off H.1
per West
V.L.C. 6 Feb 53

44

	1944.25						
	3.87	1939.55	8.57	1935.68			
4+00 ✓			3.9	35.7		$\frac{+2.7}{5.0}$	$\frac{5.1}{12^\circ}$ $\frac{11.8}{23}$
150 ✓			3.9	35.7		$\frac{+3.0}{14^\circ}$	$\frac{3.7}{6}$ $\frac{4.6}{8^\circ}$ $\frac{11.5}{17}$
774 ✓			3.4	36.2		$\frac{+3.2}{5^\circ}$	$\frac{3.2}{2^\circ}$ $\frac{5.5}{10 RT}$ $\frac{13.0}{22 RT}$
5+00 ✓			3.7	35.9		$\frac{+3.0}{10 \pm}$	$\frac{5.3}{10 RT}$ $\frac{13.0}{21}$
5+40 ⁴⁴ AL ✓ = 5+41 ⁵³ BK			4.0	35.6			
	4.58	1940.00	4.13	1935.42			
			3.24	1936.76	= 1936.8	TBM	2+51 ⁴⁰ on Binney

Note Alignment changed
from 5+30± to 8+67.20± See Pg 47
No new Profile notes taken
V.L.C. Jan 30 1953

checked & Reduced - J.W. 5 Jan 53.

checked - Jeffries 16 Jan 53



Q. Profile 24" P.L.
 4' RT of South PL
 0+00 to 1+16 ±

West
 Williams
 martell
 Varonakis

2 Jan 53

45

	11.21	1951.49		1940.28
0+00			7.1	1944.39
	8.36	1959.67	0.18	1951.31
0+16			7.4	1952.27
+50			4.3	1955.37
+58			4.0	1955.67
	3.17	1950.50	12.34	1947.33
+84			14.1	1936.40
	5.87	1944.25	10.12	1938.38
1+00			11.0	1933.25
+16 ⁺			12.8	1931.45
			7.48	1936.77 =

202

9.1	13.4	
<u>10.1</u>	<u>10.0</u>	approx
11.1	15.6	Location of
<u>10.1</u>	<u>10.0</u>	Box

1936.8 ± TBM 2+5142

Reduced 1/8/53
 by Jeffery

251.49
 060.00
 191.49

Δ at 0+60 was 13° 23' 30"

$$191.49 \times \sin 13^\circ 23' 30'' = 191.49 \times 0.23160642 = 44.35031337 = X$$

$$191.49 \times \cos 13^\circ 23' 30'' = 191.49 \times 0.97280955 = 186.2830908 = Y \times 186.28331$$

Add 10' = 196.2830908 = Y + 10' = 196.28331

Δ at 0+50 = Arctan $\frac{44.35031337}{186.2830908}$

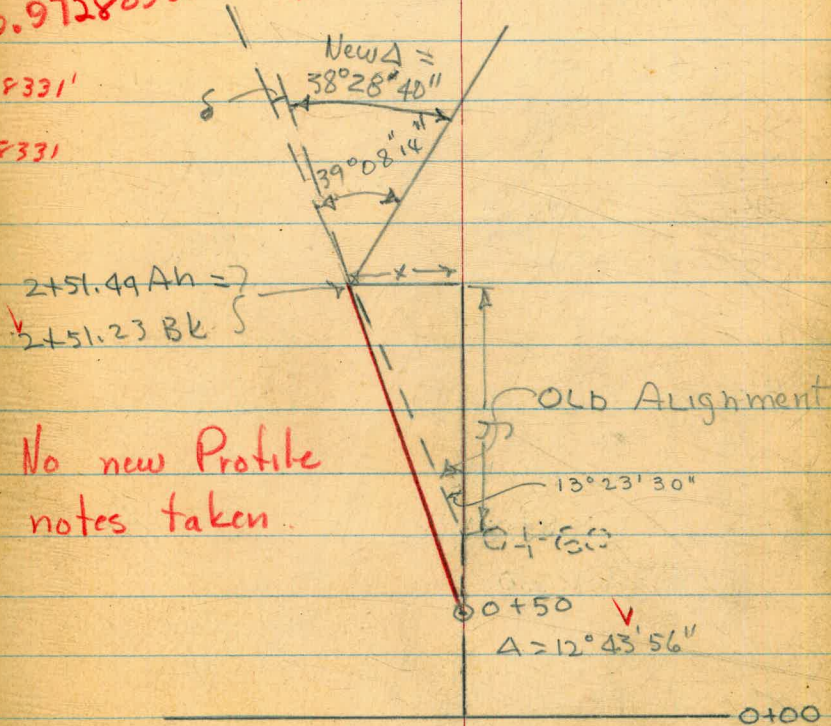
Arctan 0.22595076 = 12° 43' 56" = Δ at 0+50

New length = $\frac{44.35031337}{\sin 12^\circ 43' 56''} = \frac{44.35031337}{0.22039479} = 201.23$

201.23
 50
 251.23'

12 82 90	38 67 74
13° 23' 30"	39° 08' 14"
- 12° 43' 56"	00° 39' 34"
00° 39' 34" = 8	38° 28' 40" = New Δ

0.97280955 by 829 11/5/53



No new Profile notes taken.

Revision by VLE 6 Jan 53
 Checked JW 21 Jan 53.
 Reck by 829 11/5/53

ALIGNMENT REVISION - 5+30.62 - 8+67.20

Entered By V.L.C. 30 Jan '53

$$a = \frac{4.00}{\tan 52^{\circ}50'30''} = \frac{4.00}{1.31944270} = 3.03'$$

$$b = \frac{4.00}{\sin 52^{\circ}50'30''} = \frac{4.00}{0.79696938} = 5.02'$$

$$c = \frac{4.00}{\tan 21^{\circ}05'34''} = \frac{4.00}{0.38572307} = 10.37'$$

$$d = \frac{4.00}{\sin 21^{\circ}05'34''} = \frac{4.00}{0.35987920} = 11.11'$$

$$DC = \frac{8+61.23}{-5+40.04} \quad B = \frac{5+40.04 \text{ Ah}}{11.11} = \frac{5+41.73 \text{ Bk}}{11.11}$$

$$\frac{3 \ 21.19}{5+28.93 \text{ Ah}} \quad \frac{5+30.62 \text{ Bk}}{11.11}$$

$$B = 5+30.62 \text{ Bk}$$

$$\begin{array}{r} 10.37 \text{ c} \\ 3+21.19 \text{ DC} \\ \hline 5.02 \text{ b} \end{array}$$

$$\begin{array}{r} 8+67.20 \\ -3.03 \\ \hline 8+64.17 \end{array}$$

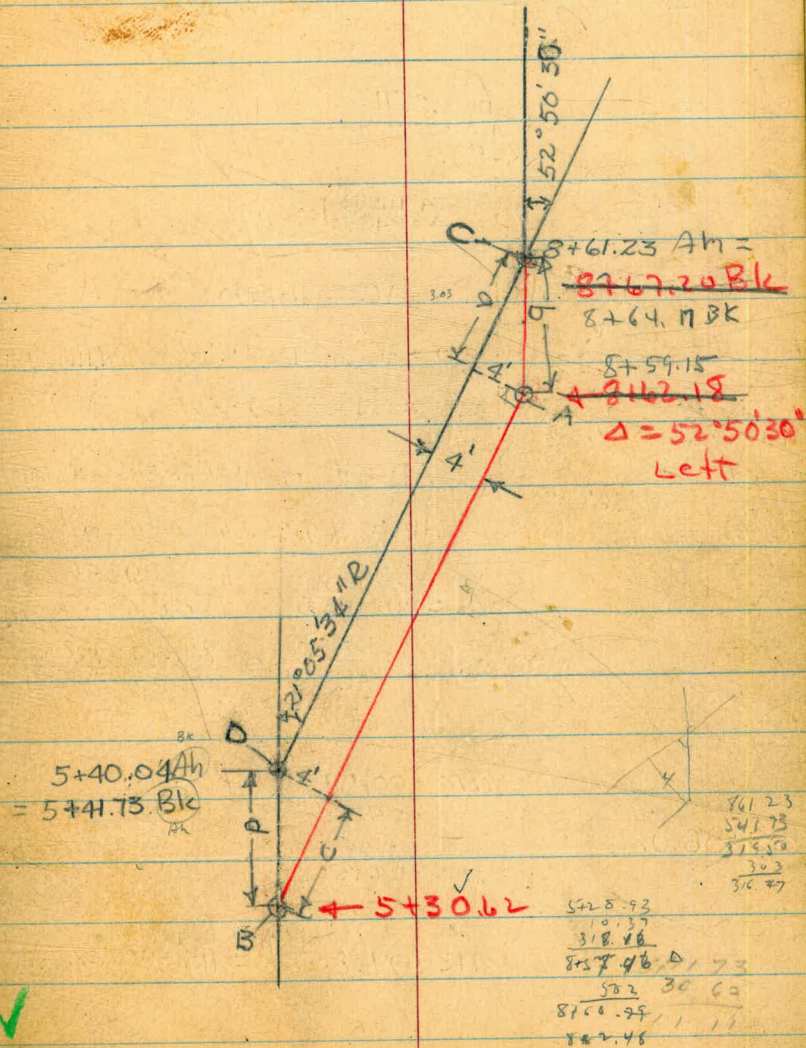
$$B = 5+28.93 \text{ Ahead}$$

$$\begin{array}{r} 10.37 \text{ c} \\ 3 \ 18.16 \text{ DC-A} \\ \hline 8+57.46 \end{array}$$

$$A = \frac{8+57.46}{5.02 \text{ b}}$$

$$C = 8+62.48$$

Revised line shown in Red
No new profile notes taken



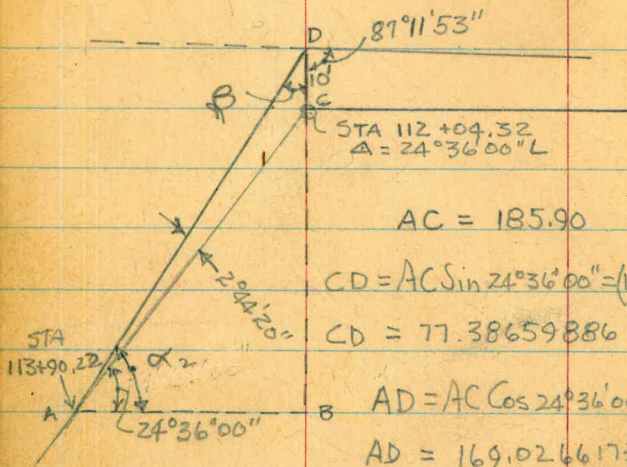
ALIGNMENT REVISION STA. 110+00.00 - STA 113+90.22

ENTERED By Vlc 30 Jan '53

$$\frac{112+04.32 - 110+00.00}{2+04.32} \alpha_1 = \tan^{-1} \frac{10}{204.32} = 0.0489428347$$

$$\alpha_1 = 2^{\circ}48'07''$$

$$L = \left[\frac{10^2 + (204.32)^2}{2} \right]^{1/2} = (41846.6624)^{1/2} = 204.5645'$$



$$AC = 185.90$$

$$CD = AC \sin 24^{\circ}36'00'' = (185.90)(.41628079)$$

$$CD = 77.38659886$$

$$AD = AC \cos 24^{\circ}36'00'' = (185.90)(.9092344)$$

$$AD = 169.02661733$$

$$\alpha_2 = \tan^{-1} \frac{DB}{AD} = \frac{87.38659886}{169.02661733} = 21^{\circ}20'20''$$

$$\sin \alpha_2 = \frac{DB}{AB}; AB = \frac{87.38659886}{0.45925239} = 190.22$$

110+00.00
2+04.56

112+04.56
1+90.29

113+94.85 BK = 113+90.22 Ah.

48.

Revised Line Shown in Red.

113+90.22 Δ
 $\Delta = 9^{\circ}48'Lt$
old Hub

113+94.85 BK =
113+90.22 Ah.
 $\Delta = 7^{\circ}05'40''L$
2°44'20"

No new Profile
notes taken.

112+04.32 Δ
 $\Delta = 24^{\circ}36'Lt$
old Hub

112+04.56 Δ
 $\Delta = 30^{\circ}08'27''L$
190.29
 $\alpha_1 = 2^{\circ}48'07''$
110+00.00 Δ
 $\Delta = 2^{\circ}48'07''R$

1013.94'

99+86.06 Δ



Entered By YLC 30 Jan '53

Alignment Revision Sta. 123+68.70 to 127+67.14

125+95.00	127+66.81
<u>123+68.70</u>	<u>125+95.00</u>
2+26.30	1+71.81

$$L_1 = \sqrt{8^2 + (226.30)^2} = \sqrt{51275.69} = 226.44'$$

$$L_2 = \sqrt{8^2 + (171.81)^2} = \sqrt{29582.6761} = 172.00'$$

$$\theta = \tan^{-1} \frac{8}{226.30} = 0.03535130357 = 2^{\circ}01'29''$$

$$\phi = \tan^{-1} \frac{8}{171.81} = 0.04656306384 = 2^{\circ}39'57''$$

123+68.70
2+26.44
<u>1+72.00</u>
127+67.14 = NEW STA

Revised Line Shown in Red

123+68.70
 $\Delta = 11^{\circ}33'00''$ LT

$2^{\circ}01'29'' = \theta$
 $9^{\circ}31'31''$

$L_1 = 226.44$

125+95 - P.O.T.

8'

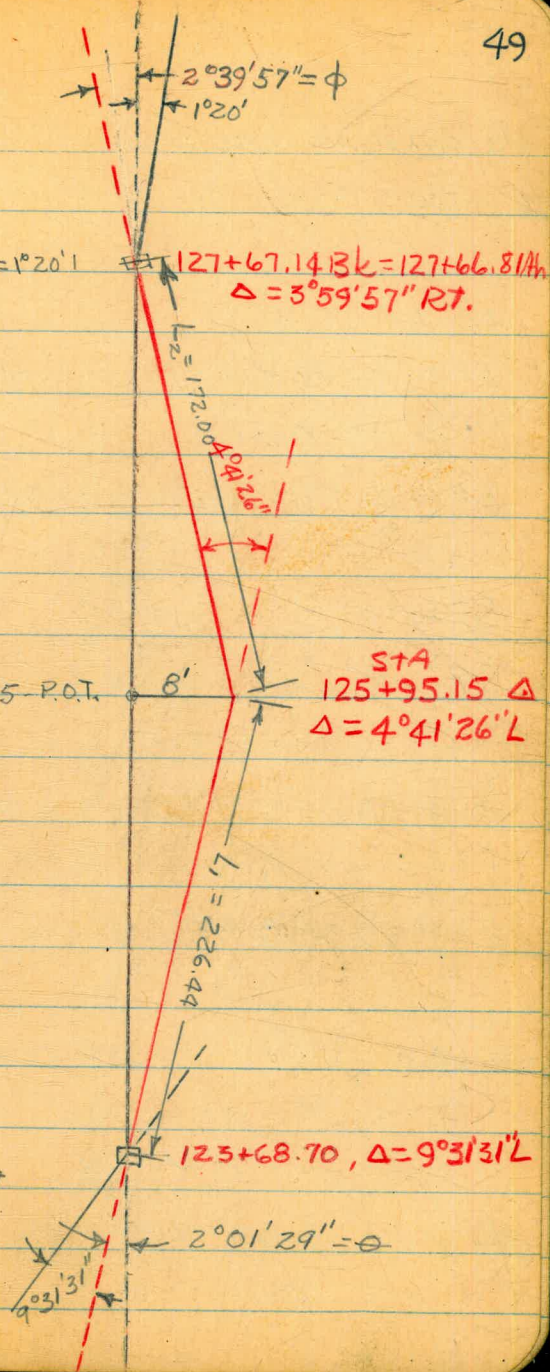
STA
125+95.15 Δ
 $\Delta = 4^{\circ}41'26''$ L

$L_2 = 172.00$
 $9^{\circ}31'31''$

127+66.81, $\Delta = 1^{\circ}20'$

127+67.143k = 127+66.81/4h
 $\Delta = 3^{\circ}59'57''$ RT.

$2^{\circ}39'57'' = \phi$
 $1^{\circ}20'$



Entered by Wilbur on 24 Feb 53

50

ALIGNMENT REVISION -

STA. 13+00 to 15+37.04 Bk = 15+37.83 Ak

$$\overline{DE} = 22.93$$

$$\overline{DF} = 22.93 \sin 34^{\circ}10' = 22.93 (0.56160211)$$

$$= 12.8775$$

$$\overline{EF} = 22.93 \cos 34^{\circ}10' = 22.93 (0.82740744)$$

$$= 18.97245$$

$$\overline{BC} = \overline{DF} = 12.8775'$$

$$\overline{AB} = \overline{BC} / \tan 27^{\circ}38'30'' = 12.8775 / 0.52371869$$

$$= 24.5888$$

$$\overline{AC} = \overline{BC} / \sin 27^{\circ}38'30'' = 12.8775 / 0.46394038$$

$$= 27.7567$$

$$\overline{CF} = \overline{BD} = \overline{AD} - \overline{AB} = 214.90 - 24.59 = 190.31$$

NEW

$$\text{STA @ A} = \overline{EFCA} = 1300 + 18.97 + 190.31 + 27.76$$

$$= 15 + 37.04 \text{ Bk}$$

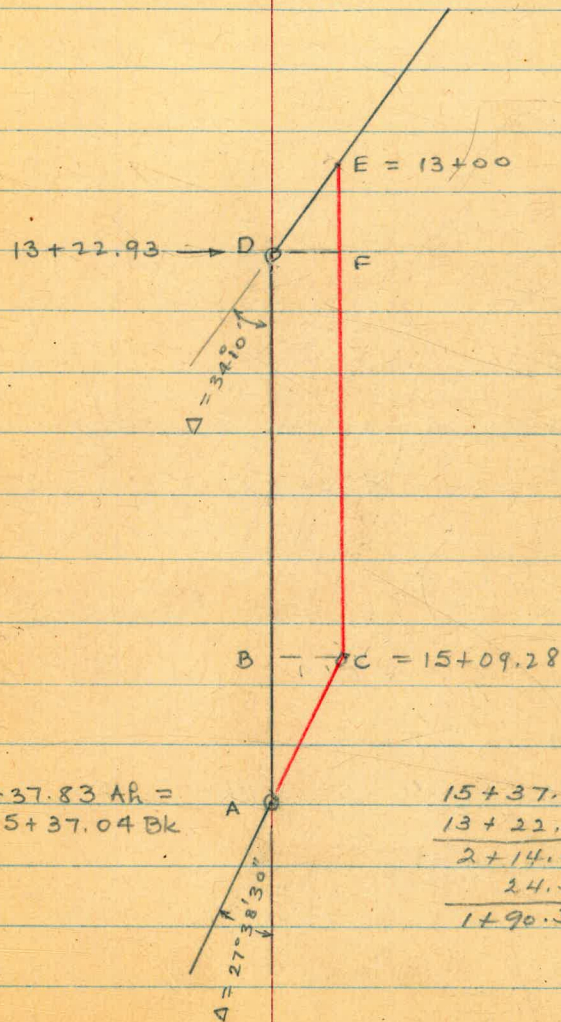
$$= 15 + 37.83 \text{ Ak}$$

$$\text{STA @ A} = 1300 + 18.97 + 190.31$$

$$= 15 + 09.28$$

Jan 1953

REVISED LINE IN RED
NO NEW PROFILE TAKEN



Sutcliffe
Soil Conditions Unit #3

4-6-53

51

245+00 to
274+

Red Sandy Soil - 1' Deep
D.G. & Rock outcrop

Small Field of Wheat

274-300+00

Pasture - Rock & D.G.

300+00
305

Sandy loam 3' Deep then D.G.
Rock outcrop

305+00

Good

348-

Black Sandy loam over

3' Deep

348-391+50

Red Fine Sandy soil with
Few Rock outcroppings

444+00 - 461+30

Good Black Soil - over 4' deep

461+31 - 467+00

Light River sand -

467+00 - 496+10

Sandy loam soil over 3' Deep

Syll. P. 1.

Soil Condition

7-6-53

52

570+40-590

Red clay & D.G. with Rock

outcroppings

590-609

Black Sandy loam over 3'

Deep

609-620

" " " " "

" Some Rock

620-628+53

Red loamy D.S. + Rock

outcroppings

Pasture

Profile & Cross Section
Pasture - Quimby - (own New)
Sutherland P.L.

Sta 468+48.44 to 479+00

May 5, 53

West Williams
Camp
Varon Fakis

53

Sta	+ HI	- Elev	1415.56 Top sewer MH 467+00								
			Left				Right				
468+48.44 ✓	4.23 ✓ 1419.79 ✓	4.6 ✓ 1415.2 ✓	2.3 135	4.7 84	3.3 65	5.9 133	8.1 218	10.5 537	creek		
469+00 ✓		4.4 ✓ 1415.4 ✓	3.8 105	5.0 62	5.5 69	6.0 190	8.8 226	12.8 538	creek		
470+00 ✓		4.8 ✓ 15.0 ✓	1.4 104	3.6 100	4.9 78	6.1 36	6.0 108	6.0 205	9.7 243	12.5 260	
471+00 ✓		5.3 ✓ 14.5 ✓	2.7 171	4.3 104	5.2 54	4.9 40	6.3 90	8.4 185	5.8 531	10.0 560	13.1 774
472+00 ✓		4.1 ✓ 13.7 ✓	3.9 243	5.4 138			5.2 105	4.9 160	7.8 250	7.4 288	
473+00 ✓		6.9 ✓ 13.0 ✓	Fence 4.2 551	6.2 144	7.1 77			6.6 138	6.3 339	7.8 338	
474+00 ✓	2.32 ✓ 1416.51 ✓	5.60 ✓ 1414.19 ✓	Fence 1.6 253	3.6 171	4.1 101	4.1 91	4.1 192	3.7 294	5.9 395		
475+00 ✓		4.6 ✓ 11.9 ✓	Fence 2.3 257	4.4 180	4.8 84	5.3 34	4.5 139	4.4 240	4.0 341	5.0 438	
476+00 ✓	3.22 ✓ 1416.01 ✓	3.72 ✓ 1412.79 ✓	Fence Nail in Power pole 2.3 255	4.1 167	4.3 112	4.8 58	5.0 63	4.4 158	4.3 219	4.1 278	4.0 465
477+00 ✓		4.7 ✓ 11.3 ✓	Fence 3.3 257	4.9 158	5.0 59	4.8 100	4.3 537	4.1 379	5.4 640	11.0 730	

Cross Section Cont'd
Quimby Prop.

55-53
RMS

1417.63

54

Sta	L	HI	-	Elev	Left			Right		
		1416.01								
478+00	✓		5.2 ✓	10.8 ✓	$\frac{3.5}{259}$	$\frac{5.0}{151}$	$\frac{5.3}{45}$	$\frac{4.9}{100}$	$\frac{4.3}{209}$	$\frac{4.6}{312}$
478+69±		Fence edge property								
479+06	✓		6.0 ✓	10.0 ✓	$\frac{0.3}{259}$	$\frac{4.7}{171}$	$\frac{5.6}{65}$	$\frac{6.3}{38}$	$\frac{5.5}{142}$	$\frac{5.7}{241}$ $\frac{5.4}{342}$
		9.88 ✓	1424.50 ✓	1.39 ✓						
			5.82 ✓	1418.68 ✓						
					1418.63 Hub E.P.O.T			489+00		

Checked & Reduced - 5-18-53 J.W.

✓

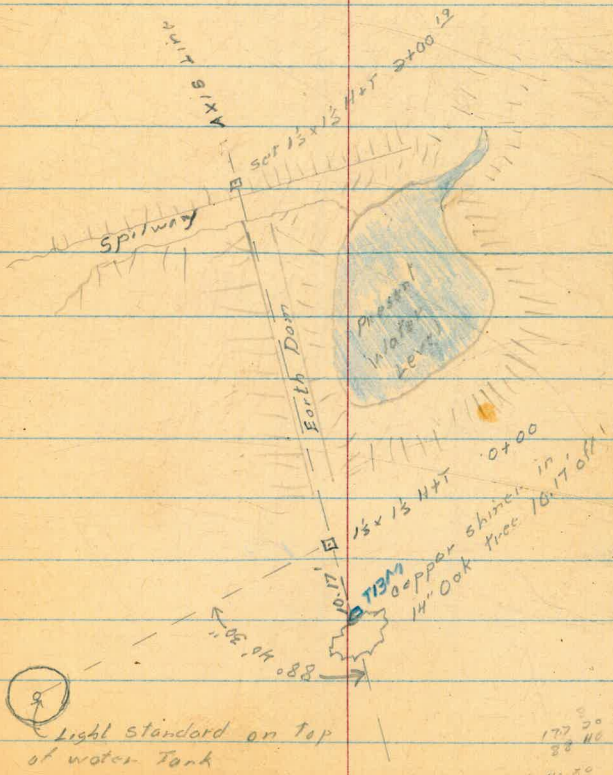
Sutherland Pt.
 cross Section NACKONY Dam

May 6, 53
 Kings
 West
 Williams
 Kemp
 Varonakis

55

Notes: 1/10/54

0+65 to 1+15
 Alluvial silt in evidence
 0.1 to 0.65 in depth
 50 to 130 ft. base line
 No coarse silt, washed
 in, in evidence.



TBM Large rock south end of
 AXIS Ele = 1797.41

0+00 1/2 4' North of edge spillway

0+00 H/T South end Dam

172 50 31
 88 40 64
 78 40 30

Nookony Dam (cont'd)
For Silt - West of Suth. P.L.

May 6, 53
King

56

AXIS Sta	+	Hi	-	
	0.46	1797.87		1797.41
	0.81	1790.90	7.78	1790.09
0+25			0.70	
0+50			1.2	
0+75			1.1	
1+00			0.6	
1+25			0.5	
1+50			0.1	
1+70			1.5	
1+72	edge	Spillway		
1+80	∅	Spillway	-6.6	1784.3
1+80			-1.4	1786.5
	8.54	1798.99	0.46	1790.45
			1.59	1797.40 = 1790.41 BM

All sections taken are to Right of Baseline

TBM 5x3' Rock by oak tree South

end of axis

0.7	4.2	4.2	12.6	6.0	1.0
22	56	94	140	153	177

1.1	5.6	12.2	16.3	15.2	6.7	0.6
7	24	51	115	125	144	170

1.0	6.3	16.9	20.3	18.4	16.9	10.9	1.6
7	21	55	85	105	125	152	181

May 6 53
Water Surface

East edge of pond

correct

1.0	7.7	16.9	20.0	16.9	10.0	18.5	16.2	1.8
3.0	25	47	102	140	169	180	210	230

creek bottom

1.2	6.4	16.9	18.9	17.9	16.9	10.7	8.8	14.3	2.3
6.0	23	60	101	150	172	182	235	245	280

beginning of spillway

creek bottom

0.2	4.8	9.2	11.7	12.3	4.9	8.8	13.6	7.1	2.0
5.0	28	46	81	130	170	243	250	260	290

Spillway

1.9	6.5	7.0	5.4	2.1
6	20	66	83	162

Spillway

0.4	6.0	26	0.0
15	56	76	158

Top Sand bags in spillway

← Sample of pond water (no extra charge)

New Profile from Sta 0+00
to 10+96.07 BH
to 10+96.65 AH

Sta	+	Hi	-	
	2.47	1969.37		1966.90
	0.75	1957.80	12.32	1957.05
0+00			14.0	43.80
+10			6.2	51.6
+30			3.6	54.2
+50			2.65	55.15
+60			2.0	55.80
	3.09	1948.41	12.48	1945.32
+87			9.8	38.61
1+00			12.3	36.11
+50			13.8	34.61
2+00			13.6	34.81
+51			14.7	33.71
3+00			14.4	34.01
+56	11.59	1947.12	12.88	1935.53
4+00			11.0	36.12
+50			12.9	34.22
5+00			12.4	34.72
+41			12.5	34.62
+50			12.0	35.12

West
Williams
Varonokis

57

7-17-53

TBM on Dam

This area being worked on (subject to change)

$\frac{1.9}{10.11}$

$\frac{4.7}{10.11}$

Road area used by Dam Contractor

$\frac{1.1}{10.11}$

$\frac{5.6}{10.11}$

$\frac{6.9}{10.11}$

$\frac{12.4}{10.11}$ Bottom of road fill

$\frac{11.1}{10.11}$

$\frac{14.4}{10.11}$

Pipe Line Contractor has benched this section

Top of Bank Bottom of Top of Fill

$\frac{7.0}{12}$

$\frac{12.9}{7.0}$

$\frac{13.0}{17}$

$\frac{9.4}{11}$

$\frac{13.4}{9}$

$\frac{14.9}{19}$

$\frac{3.6}{10}$

$\frac{13.5}{5}$

$\frac{14.1}{16}$

$\frac{2.8}{11}$

$\frac{12.8}{9}$

$\frac{13.3}{13}$

$\frac{2.0}{10}$

$\frac{14.0}{8}$

$\frac{14.0}{14}$

$\frac{4.6}{11}$

$\frac{11.6}{8.5}$

$\frac{12.7}{12}$

$\frac{3.6}{9}$

$\frac{11.6}{7}$

$\frac{11.8}{13}$

$\frac{2.3}{8}$

$\frac{12.3}{6}$

$\frac{13.5}{13}$

					Bottom of Cut Bank	Top of Fill Bank	
6+00 ✓	1947.12 ✓	10.6 ✓	1936.52 ✓		$\frac{4.3}{13}$	$\frac{9.8}{10.1}$	
+41 ⁶⁰ Post ✓		3.4 ✓	43.72 ✓		$\frac{+5.6}{12}$	$\frac{1.9}{10.1}$	
+50 ✓		3.4 ✓	43.72 ✓		$\frac{+4.6}{8}$	$\frac{2.9}{7}$	$\frac{5.6}{14}$
7+00 ✓		3.85 ✓	43.27 ✓				
+50 ✓		4.1 ✓	43.02 ✓		$\frac{+4.4}{9}$	$\frac{3.6}{6}$	$\frac{4.6}{15}$
8+00 ✓		3.0 ✓	43.92 ✓		$\frac{+7.5}{13}$	$\frac{1.5}{9}$	$\frac{4.0}{23}$
+46 ¹² ✓		2.4 ✓	44.72 ✓		$\frac{+9.3}{20}$	$\frac{2.7}{10}$	$\frac{3.1}{17}$
	2.4 ✓	1947.98 ✓	1.62 ✓	1945.50 ✓			
9+00 ✓		7.2 ✓	40.78 ✓			$\frac{6.3}{13}$	$\frac{6.3}{13}$
+50 ✓		13.0 ✓	34.98 ✓		$\frac{3.6}{17}$	$\frac{12.8}{6}$	$\frac{12.9}{13}$
10+00 ✓		12.4 ✓	35.58 ✓		$\frac{2.0}{25}$	$\frac{12.0}{8}$	$\frac{12.0}{13}$
+50 ✓		8.2 ✓	39.78 ✓			$\frac{2.1}{8}$	$\frac{2.6}{13}$
10+96 ⁶³ BM ✓		7.3 ✓	40.68 ✓		$\frac{0.3}{12.1}$	$\frac{5.3}{10.1}$	$\frac{7.4}{26}$
T.P. 12.17 ✓	1959.67 ✓	0.48 ✓	1947.50 ✓				
T.P. 11.97 ✓	1971.03 ✓	0.61 ✓	1959.06 ✓				
T.P. 11.94 ✓	1982.61 ✓	0.36 ✓	1970.67 ✓				
T.P. 12.77 ✓	1991.73 ✓	3.65 ✓	1978.96 ✓				
CK. TO B.M.		6.72 ✓	1985.01 ✓	1985.02 ✓	BM 10+96	90' + 11'	

See FB 815 A, Page 2

10+96.65 AH 0°17' LT
10+91.24 BK

8+46.17 49°57' LT

5+41.73 21°05'34" RT

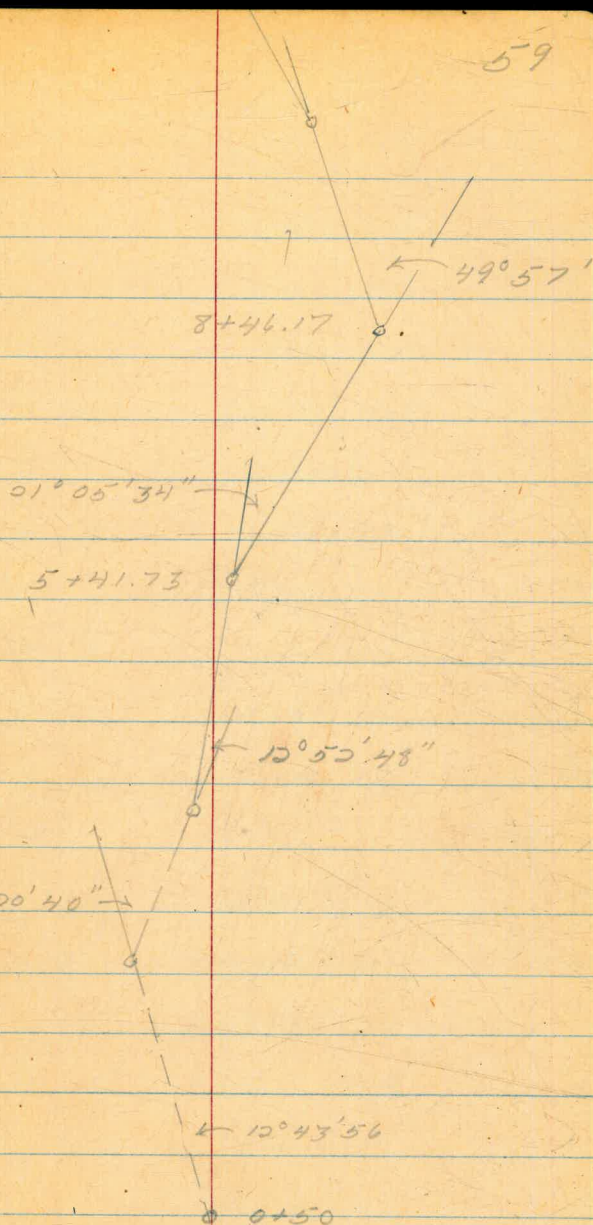
3+56.08 12°52'48" LT

2+51.23 BK
2+51.49 AH 38°20'40" RT

0+50 12°43'56" LT

0+00 AXIS of Dam

59



✓ Dam Axis

SUTHERLAND CONDUIT.
 CROSS-SECTION OF RESERVOIR OF
 NORMAN C. SCHANKE

DEC. 15, 1953
 BEATTY
 SHARREY
 MARTELL
 ALEXANDER

60

B.M.	0.95	1921.75		1920.80	
TP	0.46	1910.88	11.33	1910.42	
TP	0.74	1898.59	13.03	1897.85	
TP	0.21	1886.45	12.35	1886.24	
TP	0.77	1873.88	13.34	1873.11	
TP	0.90	1861.80	12.98	1860.90	
TP	0.46	1849.09	13.17	1848.63	
TP	0.55	1836.47	13.17	1835.92	
TP	0.80	1825.36	11.91	1824.56	
TP	0.31	1812.51	13.16	1812.20	
CK. TBM.			10.86	1801.65 = 1801.64	
TP	0.20	1799.41	13.30	1799.21	
TBM	0.33	1786.93	12.81	1786.60	
TP	0.19	1774.40	12.72	1774.21	
TP	0.15	1762.77	12.38	1762.02	Rock
TP	0.56	1750.33	13.00	1749.77	✓
TP	0.24	1737.91	12.66	1737.67	
TP	0.31	1725.52	12.70	1725.21	
TBM.			12.25	1713.27 =	

Rock 160 RT 223+51

PP 212990

□ NNW. Cor. Conc. Air Relief Box

0+00 Baseline on Earth Dam

SUTHERLAND CONDUIT
 JCHANKE RESERVOIR X-SECTS
 (Cont'd)

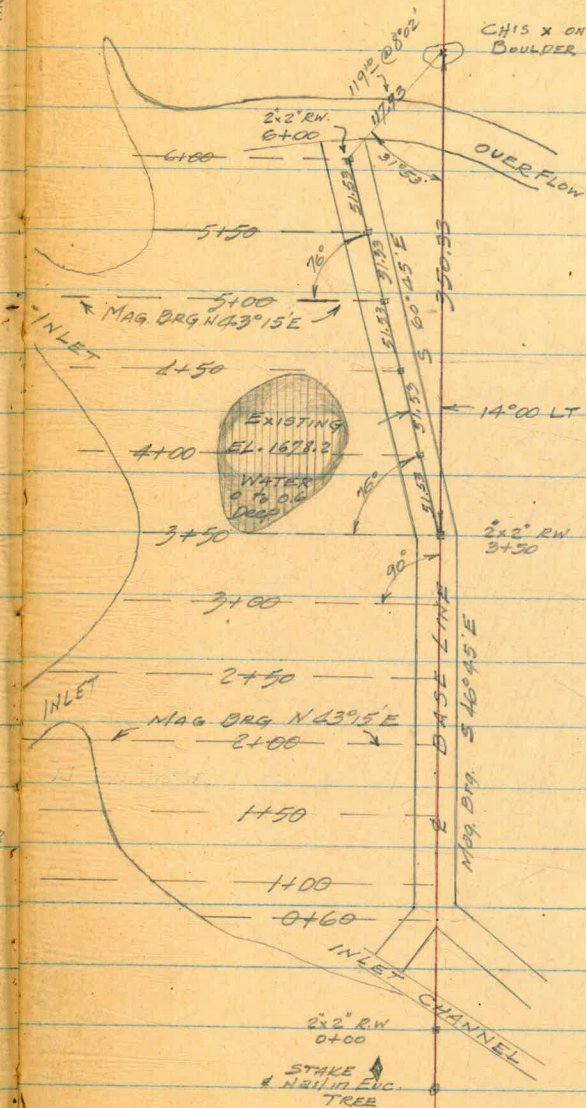
12/15/53

.03 1710.30

61

0+00	0.00	1713.27	1713.27	2x2 RW 0+00 BASE LINE
0+60		6.32	1706.95	
1+00		7.94	1705.33	
1+50		10.39	1702.88	
2+00		10.49	1702.78	
2+50		10.61	1702.66	
3+00		10.71	1702.26	
TP 3+50	A 5.07	1707.26	11.08	1702.79
4+00	E of BASE LINE	5.17	1702.09	
4+50		5.47	1701.79	
5+00		4.63	1702.63	
5+50		4.63	1702.63	
TP 6+00	12.72	1715.99	3.77	1703.27
TBM		0.81	1715.18	□ on ROCK
TP 5+00	3.78	1706.41	13.36	1702.63 = 1702.63
TP	2.66	1697.40	11.67	1694.74
		10' below upper X		
TP	1.88	1688.36	10.92	1686.48
		19' below upper X		
TP	12.40	1698.88	1.88	1686.48
		9' below upper X		
TP	12.69	1711.39	0.18	1698.70
TP	12.73	1723.97	0.15	1711.24

(Continued on pg. 64)



1/15/54
 NOTE:
 3+50 - 4+60
 80 - 200' LT of
 baseline,
 evidence of
 Annual silt 0.2
 to 0.7 deep. No
 evidence of
 coarse washed
 in erosion.

JUTHERLAND CONDUIT
 SCHANKE RESERVOIR X-SECT.5
 (Cont'd)

12/15/53

62

LEFT of BASE LINE

RIGHT of BASE LINE

HP 3.35 1710.30 1706.95

E gink 0460

170.9 170.1 170.9 170.1 170.1 170.2 170.1 170.6
 7.0 6.2 2.4 2.6 6.2 7.4 8.4 4.1 2.85
 45 35 31 20 16 7 2 3 6

170.0 170.4 170.6 170.8 170.6
 7.3 8.9 7.7 3.5 3.7
 25 38 50 72 87

0+60 3.35 1706.95

1+00 4.97 1710.30 4.97 1705.33

1697.5 170.1

12.8 3.2 6.5 5.6 5.4 7.6 7.8 8.4 8.8 7.3 7.2 10.6 12.2 7.1 8.3 8.2 5.0 5.0 5.2
 42 40 38 35 30 25 20 15 10 6 5 2 10 6 3 4 3 14 5 4
 CHANNEL DAM

13.7 17.3 18.4 16.3 13.4 4.0
 470 445 447 452 456 462
 CHANNEL

1+50 5.20 1708.08 7.42 1702.88

19.0 13.1 12.2 8.2 6.5 9.3 12.5 12.1 12.0 12.7 13.7 11 11.6 11.4 5.5 5.2
 395 384 363 321 300 250 200 150 100 79 78 73 50 21 5 4

10.4
 208

2+00 4.62 1707.40 5.20 1702.78

17.2 17.4 19.6 18.9 15.0 15.3 18.2 18.6 18.3 20.0 16.5 16.6 17.3 17.4 4.9 4.6 4.8
 300 296 285 274 262 250 200 150 115 112 106 100 50 46 4 5 7

17.4 19.6 20.1 15.6 13.3
 322 327 336 361 363

2+50 4.74 1707.10 4.74 1702.66

18.2 17.4 20.2 21.7 22.2 22.7 23.6 22.3 21.0 5.0 4.7 5.0
 300 275 259 255 247 200 150 100 57 5 5 5

12/17/53

3+00 5.10 1707.36 5.14 1702.26

11.6 15.3 23.4 26.5 26.6 25.5 23.9 7.7 5.4 5.1 5.2
 273 250 223 200 150 100 65 18 6 5 4

SUTHERLAND CONDUIT
 SCHANKE RESERVOIR X-SECTS
 (Cont'd)

12/17/53

63.

3+50 5.17 1707.36 5.17 1702.19

1707.36
 141 150 173 217 244 255 253 279 290 288 278 255 93 55 32 52
 400 363 345 327 300 250 223 211 200 150 100 73 19 7 0 3
 Edge NAT. Top of Dam

4+00 5.27 1707.36 5.27 1702.09

1678.2
 138 199 219 244 269 270 269 292 300 293 275 183 124 52 33 53
 450 410 400 350 300 250 225 200 150 100 85 25 25 5 c 4
 Edge NAT. Edge NAT.

4+50 5.57 1707.36 5.57 1701.79

1678.1
 141 225 243 242 236 245 251 257 266 289 287 274 201 121 55 36 58
 478 445 418 400 370 350 300 250 200 150 100 75 30 25 6 c 4
 LINE
 1701.8

5+00 4.73 1707.36 4.73 1702.63

1702.6
 202 193 201 218 226 219 230 233 224 239 230 219 184 104 48 47 48
 293 250 220 200 162 159 154 145 143 120 100 66 50 24 6 c 3

207 200 176 175 209 203 201 152 177 172 122
 300 350 400 439 462 500 550 590 609 628 640
 BASE

5+50 5.25 1707.88 4.73 1702.63

116 117 152 166 194 228 206 134 122 134 145 135 104 56 53 54
 300 250 200 191 179 167 156 119 96 69 59 25 25 7 c 3

6+00 No Section Necessary
 Will be no erosion or
 silting up.

SUTHERLAND CONDUIT,
SCHANKE RESERVOIR X-SECTS
(Cont'd.)

12/17/53.

64

1723.97 (H.I. from pg 61.)

P 12.68 1736.60 0.05 1723.92

P 12.86 1749.31 0.15 1736.45

P 12.69 1761.82 0.18 1749.13

ck P 12.06 1749.76 = 1749.77

P 11.27 1772.61 0.48 1761.36

CK TOM. 2.10 1770.51 = 1770.55 Nail P. DOLE #212982

1805259

on hub

223x51.95

7.48

Please Return to
 City of San Diego Water Dept.
 Room 903 Civic Center

TOP 114
 1410.47

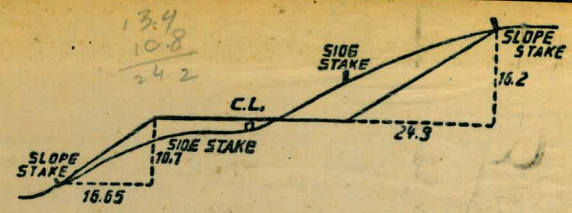
shiner in oak
 1420.76
 + 2.91
 1423.67
 8.15
 1415.52

69
 465 + 48.44 + 8.00

57.50
 0000

136.00

13th ST
 478 + 78.81 POT
 5.30 LT



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.
 SLOPE 1 1/2 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	71.25	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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