

MISSION BAY

77



FIELD BOOK

NO. 1

53-Stabilizer

MICROFILMED

JAN 8 1965

MADE IN U. S. A.

Our Leather Bound Engineers Note Books are carried in the following rulings:

No. 380 LEVEL BOOK. Left and Right Hand Page the same as Left Hand Page of this Book.

No. 382 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 4x4 to the inch, Center Line Red.

No. 384 MINING TRANSIT BOOK. Left Hand Page as in this Book, Right Hand Page 8x8 to the inch, Center Line Red.

No. 385 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 8 vertical and 4 horizontal lines to the inch, Center Line Red.

We also carry the Note Books listed above, bound in extra strong Fabri-Hide (otherwise the same quality of book,) which can be furnished at a somewhat lower price.

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**THE FREDERICK POST CO.**

ENGINEERING and DRAFTING SUPPLIES

P. O. Box 803

CHICAGO

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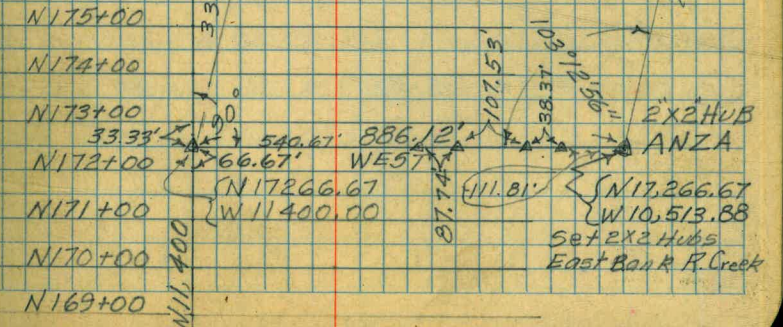
BASELINE LAYOUT FOR CROSS  
 SECTIONS OF FILL AREA OF  
 SCHOOL BOARD PROPERTY  
 DEANZA PROJECT NO 65036

5-18-52

- T.A. Stamper
- R. Sisson
- A. Sherry
- R. Shorey

N185+67  
 N185+00  
 N184+00  
 N183+00  
 N182+00  
 N181+00  
 N180+00  
 N179+00  
 N178+00  
 N177+00  
 N176+00  
 N175+00  
 N174+00  
 N173+00  
 N172+00  
 N171+00  
 N170+00  
 N169+00

BASELINE NORTH  
 33° 23' 04"  
 N13° 23' 04" E  
 TO HORSE  
 N13° 23' 04" E  
 TO HORSE  
 N13° 23' 04" E  
 TO HORSE



2x2 HUB  
 ANZA  
 N17,266.67  
 W10,513.88  
 SET 2x2 HUBS  
 East Bank R. Creek

LEVELS FOR CROSS SECTIONS  
OF SCHOOL BOARD PROPERTY

STA	+	H.I.	-	ELEV.
B.M.				12.00
	7.52	19.52		
TP.			5.64	13.88
	5.12	19.00		
TP.			5.38	13.62 13.63
	6.00	19.62		
TP.			5.58	14.04 14.06
	5.02	19.06		
TP.			4.68	14.38
	5.44	19.82		
TP.			6.88	12.94
	6.07	19.01		
TP.			5.74	13.27
	6.22	19.49		
T.B.M.			9.13	10.36 ←
TP			6.62	12.87
	3.32	16.19		
T.B.M.			3.08	13.11
	7.44	20.55		

5-19-52

6" Conc. Mon. With Brass Plug in top Near Mon. "State"

5.51

14.11

Sta W88+00

2x2" Approx W9300 10' ± 5ly B/L. N17,336.85

Top 2x2" Hub Sta W96+00 B/L. See F.B. 73 Pg 24

Side Shot Nail N. Side Power Pole N. Pole of 2 Poles 1-st 5ly from Spillway East Side of Rose Creek.

Nail in South Side of Power Pole on West Side of Rose Creek & Approx. 75' North of Rose Creek Stabilizer. &

BASELINE PROFILE LEVELS

STA	+	H.I	-	ELEV.
		20.55		
T.B.M.		4.77	15.78	
T.B.M.		5.55	15.00	
T.B.M.		5.49	15.06	
TP T.B.M.		5.73	14.82	
	4.88	19.70		
T.B.M.		4.63	15.07	
T.B.M.		4.88	14.82	
T.B.M.		4.67	15.08 <sup>3</sup>	
T.B.M.		5.06	14.64	
TP T.B.M.		4.93	14.77	
	4.19	18.96		
T.B.M.		4.40	14.56	
T.B.M.		5.05	13.91	
T.B.M.		4.80	14.16	
T.B.M.		5.09	13.87	
TP T.B.M.		5.81	13.15	
	4.10	17.25		
T.B.M.		5.01	12.24	
T.B.M.		9.42	7.83	
T.B.M.		9.61	7.64	
TP		4.35	12.90	
TP	4.84	17.74		
T.B.M.		7.49	10.25	10.36

5-19-52

TOP 2x2	Sta	N185+00
"	"	" N184+00
"	"	" N183+00
"	"	" N182+00
"	"	" N181+00
"	"	" N180+00
"	"	" N179+00
"	"	" N178+00
"	"	" N177+00
"	"	" N176+00
"	"	" N175+00
"	"	" N174+00
"	"	" N173+00
"	"	" N172+00
"	"	" N171+00
"	"	" N170+00
"	"	" N169+00
"	"	" N168+00

See Pg. 2

## CHECK LEVELS CONTD.

STA	+	H.I.	-	ELEV.
		17.74		
TP.			3.85	13.89
	5.72	19.61		
			4.89	14.72 14.77
			4.87	14.74 14.82
			4.63	14.98 15.07
TP.			4.87	14.74 14.87
	4.72	19.46		
			4.49	14.97 15.06
			4.58	14.88 15.00
			3.81	15.65 15.78
T.B.M.			6.48	12.98 13.11
T.B.M.			14.04	
	4.94	18.98		
TP.			4.61	14.37 14.38
	4.82	19.19		
TP.			5.70	13.49
	4.69	18.18		
TP.			4.92	13.26
	3.67	16.93		
T.B.M.			6.61	10.32 10.36
	7.08	17.40		
TP.			4.21	13.19
	4.78	17.97		

5-19-52

N182+00

N183+00

N184+00

N185+00

See Pg 2

5-20-52

Top 2x2 Hub Appr. W 93+00, 10' ± S/W of B/L

Top 2x7" Hub W 96+00 B/L.

See Pg 2

## CHECK LEVELS CONTD

5-20-52

STA	+	H.I.	-	ELEV.	
		17.97			
TBM.		10.41	7.56	7.64	N169+00
TBM		10.20	7.77	7.83	N170+00
TBM		5.80	12.17	12.24	N171+00
TBM.		4.84	13.13	13.15	N172+00
TBM.		4.15	13.82	13.87	N173+00
TBM.		3.89	14.08	14.16	N174+00
<sup>TP</sup> TBM.		4.15	13.82	13.91	N175+00
	6.01	19.83			
T.B.M		5.35	14.48	14.56	N176+00
TBM		5.10	14.73	14.77	N177+00
TBM		5.26	14.57	14.64	N178+00
TBM		4.88	14.95	15.03	N179+00
<sup>TP</sup> TBM.		5.10	14.73	14.82	N180+00
	5.47	20.20			
TBM		5.20	15.00	15.07	N181+00
TBM		5.43	14.77	14.82	N182+00
TBM		5.21	14.99	15.06	N183+00
TBM		5.30	14.90	15.00	N184+00
TBM		4.54	15.66	15.78	N185+00
T.B.M.		7.20	13.00	13.11	P.P. See P9 2



FINAL CROSS SECTIONS OF  
 SCHOOL BOARD PROPERTY  
 AS FILLED BY W.O. 65036  
 STA N/85+50

PK

STA	+	H.I.	-	ELEV
T.B.M.				15.66
	2.72	18.38		
E105			5.8	12.6
E141			5.7	12.7
E162			3.5	14.9
E215			4.0	14.4
E221			6.5	11.9
E245			5.5	12.9
E284			6.0	12.4

5-20-52

6

NOTE: 0+00 Zero End Area  
 = Sta N/85+67

TOP 2x2' Hub Sta N/85+00

Not Gr

Top

Top Fill

" "

Top

N. Gr

## FINAL CROSS SEC'S CONTD

STAN 185+00

STA	+	H.I.	-	ELEV.
T.B.M.				14.90
	5.87	19 <sup>8</sup> 77		
0			5.2	14.6
W 21			5.4	14.4
W 43			7.4	12.4
W 68			7.4	12.4
E 20			5.7	14.1
E 67			5.5	14.3
E 107			5.8	14.0
E 142			6.2	13.6
E 188			5.7	14.1
E 231			6.0	13.8
E 240			7.5	12.3
E 280			8.5	11.3

5-20-52

TOP 2x2 N180+100

TOP

TOP

TOP

TOP

## FINAL CROSS SECTIONS CONTD

STA. N 184+00

5-20-52

STA	+	H. I.	-	ELEV.
TBM.				14.90
	5.03	19.93		
E 303			7.5	12.4
E 263			7.3	12.6
E 259			5.4	14.5
E 210			5.1	14.8
E 158			5.5	14.4
E 110			5.4	14.5
E 65			5.3	14.6
E 28			5.3	14.6
0			5.0	14.9
W 56			5.0	14.9
W 104			4.7	15.2
W 150			4.9	15.0
W 201			4.6	15.3
W 252			4.8	15.1
W 300			4.6	15.3
W 352			4.4	15.5
W 405			4.1	15.8
W 421			5.5	14.4
W 430			6.6	13.3
W 468			6.5	13.4

TOP 2x2 N184+00

Top

TOP

TOP

Top

STA N183+00

FINAL CROSS SECTIONS CONTD

STA	+	H.I.	-	ELEV.
TBM.				14.99
	5.01	20.00		
W 440			7.5	12.5
W 435			7.4	12.6
W 411			7.3	12.7
W 409			5.1	14.9
W 397			5.0	15.0
W 390			5.5	14.5
W 345			5.1	14.9
W 300			5.2	14.8
W 250			5.4	14.6
W 196			5.1	14.9
W 145			5.0	15.0
W 95			5.0	15.0
W 48			4.6	15.4
0			5.0	15.0
E 53			5.2	14.8
E 100			5.1	14.9
E 150			5.5	14.5
E 195			5.7	14.3
E 240			5.7	14.3
E 280			6.1	13.9
E 285			8.5	11.5
E 322			8.9	11.1

5-20-52

TOP 2x2" N183+00

STAN 182+00

## FINAL CROSS SECTIONS CONTD

5-10-52

(10)

STA	+	H.I	-	ELEV.
TBM				14.77
	5.13	19.90		
E 355			10.5	9.4
E 318			10.3	9.6
E 305			8.7	11.2
E 302			5.6	14.3
E 260			6.0	13.9
E 218			6.0	13.9
E 170			5.7	14.2
E 120			5.3	14.6
E 71			5.5	14.4
E 31			5.2	14.7
0			5.1	14.8
W 43			5.1	14.8
W 85			5.4	14.5
W 130			5.3	14.6
W 200			5.7	14.2
W 248			5.4	14.5
W 300			5.4	14.5
W 344			5.5	14.4
W 365			5.5	14.4
W 370			5.0	14.9
W 383			5.2	14.7
W 390			7.5	12.4
W 411			7.4	12.5

TOP 2x2 N 182+00

STAN 181+00

FINAL CROSS SECTIONS CONTD

STA	+	H.I.	-	ELEV.
TBM.				15.00
	5.03	20.03		
W 390			7.8	12.2
W 370			7.8	12.2
W 363			5.9	14.1
W 330			5.8	14.2
W 285			5.7	14.3
W 235			5.4	14.6
W 185			5.3	14.7
W 135			5.2	14.8
W 86			5.3	14.7
W 40			5.2	14.8
W 0			5.0	15.0
E 45			5.5	14.5
E 90			5.7	14.3
E 140			5.9	14.1
E 180			5.9	14.1
E 235			6.0	14.0
E 285			5.7	14.3
E 340			6.3	13.7
E 343			10.5	9.5
E 375			11.3	8.7
E 422			10.8	9.2

PX

5-20-52

Top 2x2 N181+00

11

STA N 180+00

FINAL CROSS SECTIONS CONTD

STA	+	H.I.	-	ELEV.
TBM.				14.73
	5.12	19.85		
E 438			10.6	9.2 Px
E 395			11.2	8.6
E 365			10.4	9.4
E 350			5.9	14.0
E 310			6.0	13.8
E 270			6.1	13.7
E 220			5.6	14.2
E 180			6.0	13.8
E 135			6.0	13.8
E 90			5.6	14.2
E 50			5.4	14.4
0			5.1	14.7
W 38			5.6	14.2
W 80			5.3	14.5
W 140			5.0	14.8
W 190			5.7	14.1
W 240			5.3	14.5
W 290			5.5	14.3
W 335			6.0	13.8
W 342			9.0	10.8
W 385			8.8	11.0

12

5-20-52

TOP 2x2 N 180+00

STA N179+00

FINAL CROSS SECTIONS CONTD

5-20-52

(13)

STA	+	H.I.	-	ELEV.
TBM.				14.95
	4.95	19.90		
0			4.9	15.0
W45			5.0	14.9
W90			4.9	15.0
W150			5.8	14.1
W202			5.7	14.2
W255			5.6	14.3
W308			6.0	13.9
W328			6.2	13.7
W335			9.6	10.3
W381			9.1	10.8
E55			5.4	14.5
E110			5.7	14.2
E160			5.4	14.5
E211			5.8	14.1
E265			6.1	13.8
E321			6.0	13.9
E370			6.6	13.3
E385			10.4	9.5
E425			11.5	8.4
E470			11.6	8.3

Px

TOP 2x2" N179+00



STA N178+00

FINAL CROSS SECTIONS CONTD

5-20-52

19

STA + H.I. - ELEV.

T.B.M. 14.57

5.03 19.60

Px.

Top 2x2 Hub N178+00

E 490		11.7	7.9
E 452		12.0	7.6
E 410		11.6	8.0
E 405		6.1	13.5
E 350		5.9	13.7
E 302		5.7	13.9
E 250		5.2	14.4
E 200		5.2	14.4
E 150		5.2	14.4
E 90		5.2	14.4
E 50		4.7	14.9
0		5.0	14.6
W 50		4.9	14.7
W 100		4.9	14.7
W 150		5.1	14.5
W 200		5.4	14.2
W 250		5.7	13.9
W 288		5.9	13.7
W 340		6.3	13.3
W 342		9.2	10.4
W 368		9.0	10.6

STAN 177+00

## FINAL CROSS SECTIONS CONTD

5-20-52

(15)

STA	+	H.I.	-	ELEV.
TBM				14.73
	5.12	19.85		
W388		9.1	10.7	Px.
W358		10.0	9.8	
W352		7.6	12.2	
W302		6.7	13.1	
W255		6.3	13.5	
W190		5.8	14.0	
W140		5.5	14.3	
W90		5.4	14.4	
W45		5.0	14.8	
0		5.1	14.7	
E50		5.3	14.5	
E90		5.5	14.3	
E140		5.4	14.4	
E185		5.9	14.0	
E232		6.0	13.8	
E285		6.2	13.6	
E335		6.2	13.6	
E385		6.6	13.2	
E425		6.6	13.2	
E432		11.2	8.6	
E450		12.5	7.3	

TOP 2X2 N177+00

STAN 176+00

## FINAL CROSS SECTIONS CONTD

STA	+	H.I.	-	ELEV
TBM				14.48
	5.12	19.60		
E 485			12.6	7.0
E 460			12.6	7.0
E 450			7.8	11.8
E 410			7.1	12.5
E 365			6.9	12.7
E 310			6.5	13.1
E 260			6.0	13.6
E 200			5.6	14.0
E 145			5.5	14.1
E 90			5.7	13.9
E 40			5.4	14.2
0			5.1	14.5
W 50			5.1	14.5
W 103			5.5	14.1
W 155			5.6	14.0
W 210			6.1	13.5
W 262			6.0	13.6
W 310			6.6	13.0
W 370			7.3	12.3
W 378			9.5	10.1
W 428			9.2	10.4

PX

5-20-52

TAB 2x2 N176+00

16

STA N175+00

FINAL CROSS SECTIONS CONTD

5-20-52

(17)

STA	+	H.I.	-	ELEV.
TBM.				13.82
	5.08	18.90		
W 492			8.6	10.3
W 448			9.3	9.6
W 445			7.0	11.9
W 394			6.5	12.4
W 340			5.9	13.0
W 280			5.7	13.2
W 220			5.3	13.6
W 180			5.0	13.9
W 120			5.1	13.8
W 58			4.8	14.1
0			5.1	13.8
E 57			5.6	13.3
E 110			5.0	13.9
E 180			5.7	13.2
E 238			5.7	13.2
E 290			5.9	13.0
E 355			6.3	12.6
E 410			6.4	12.5
E 465			6.7	12.2
E 485			7.4	11.5
E 488			10.1	8.8
E 508			11.2	7.7
E 543			11.3	7.6

TOP 2x2 Hub N175+00

Px.

STA N170+00

PX

## FINAL CROSS SECTIONS CONTD

STA	H.I.	ELEV.
TBM		7.77
4.93	12.70	
W 583	5.0	7.7
W 563	4.3	8.4
W 560	3.5	9.2
W 510	1.8	10.9
W 460	1.5	11.2
W 410	1.4	11.3
W 361	1.0	11.7
W 310	1.0	11.7
W 262	0.6	12.1
W 210	0.7	12.0
W 160	0.6	12.1
W 142	5.1	7.6

5-21-52

(23)

TOP 2x2 Hub N170+00

STA N169+00

FINAL CROSS SECTIONS CONTD. PX

STA	+	H.I.	-	ELEV.
TBM.				7.56
	5.09	12.65		
W 388			5.0	7.6
W 474			4.6	8.0
W 486			2.5	10.1
W 503			2.1	10.5
W 508			4.8	7.8
W 560			5.1	7.5

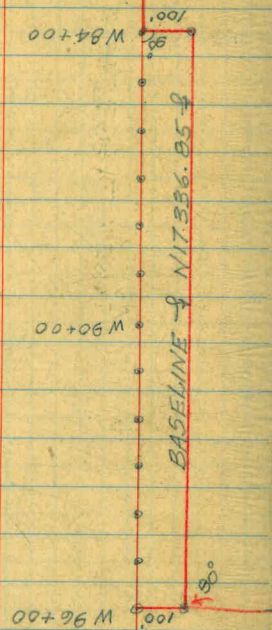
5-21-52

(29)

TOP 2"x2" N169+00.

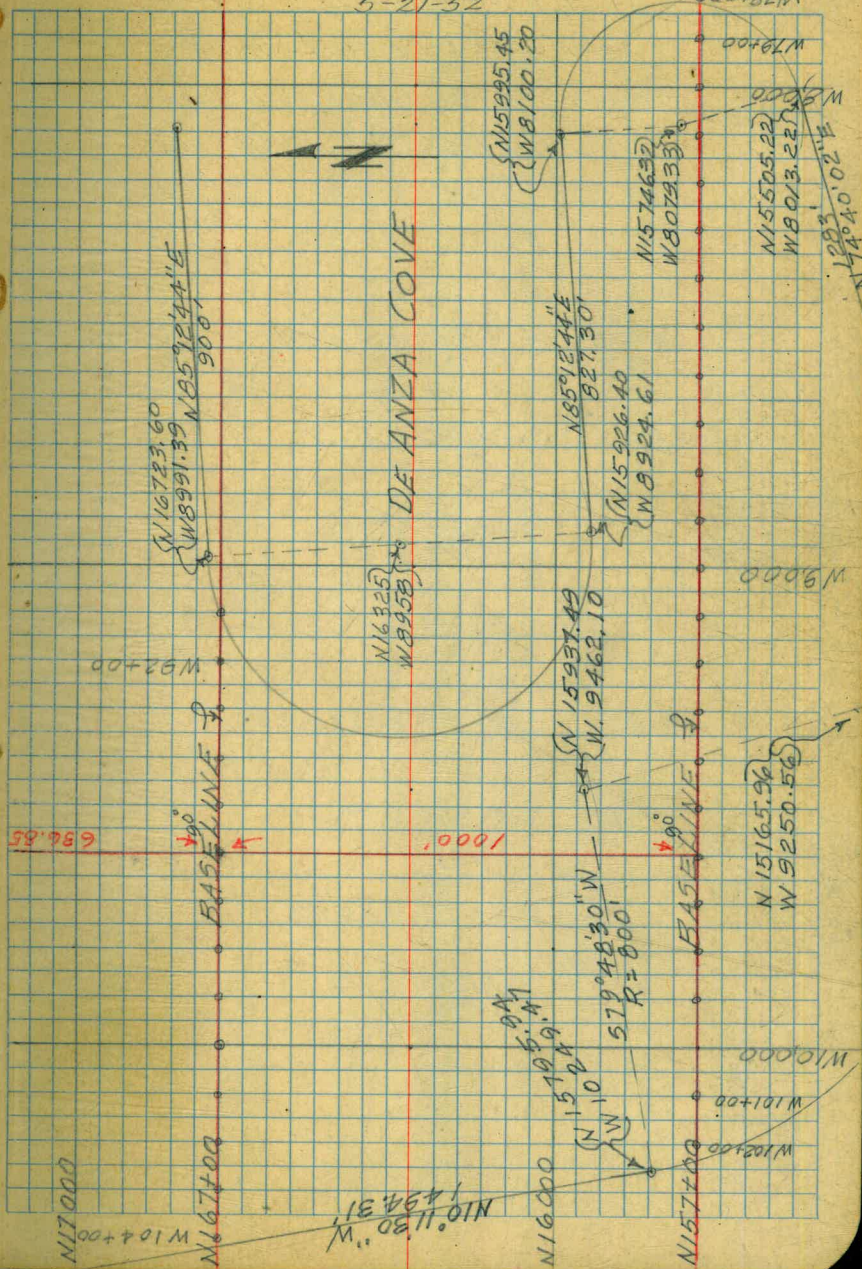
NOTE: 0+00 = STA N168+95=0  
End Area

DE ANZA POINT BASELINE  
 CONTD PROJ. NO 65036



N17436.35

"ANZA"  
 N17466.67  
 W10513.08



N17000

W104+00

N167+00

W82+00

N16723.60  
 W8991.39 N859244'E  
 900'

N16425  
 W8958

DE ANZA COVE

N1574830  
 W 5794.830  
 R=800'

N15937.49  
 W 9462.10

N859244'E  
 827.30'

N15926.40  
 W 8924.61

N1574632  
 W 807433

N15925.45  
 W 8100.20

N15165.56  
 W 9250.56

N15505.22  
 W 8013.22

N1440.02  
 W 840.02

N157+00

N157+00

W102+00

W101+00

W1000

W9000

W84+00

LAYOUT OF PURDY-WITCHER

LEASE AREA DEANZA-VICINITY

STAKES SET ON THEORETICAL

PLUS 10° ELEV. M.L.L.W. DATUM

Conc. Mon  
"State"  
N. 13436.85  
W. 7854.66

STA	OBJECT	DISTANCE
N17336.85	#7 (set)	N. 56.58 E. 34.08
W9600.00	#5 (set)	N. 51.65 E. 361.51
	#9 (set)	N. 9.76 W. 361.02

N16700.00 #2 (set) 5.18.80 E. 60.00  
W9200.00

N15700.00 "B" (set) N. 226.40 W. 24.61  
W8200.00

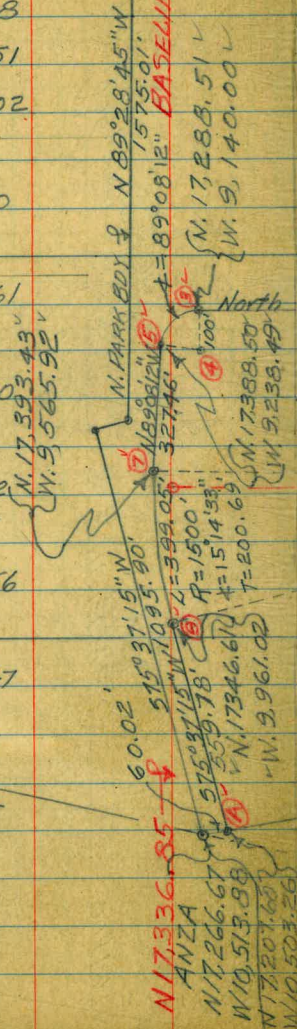
"C" N. 295.45 W. 100.20

N15700.00 "D" 5194.78 W. 13.22  
W8000.00

N15700.00 "E" 5.534.04 W. 50.56  
W9200.00

N15700.00 "F" N. 95.94 W. 49.47  
W10200.00

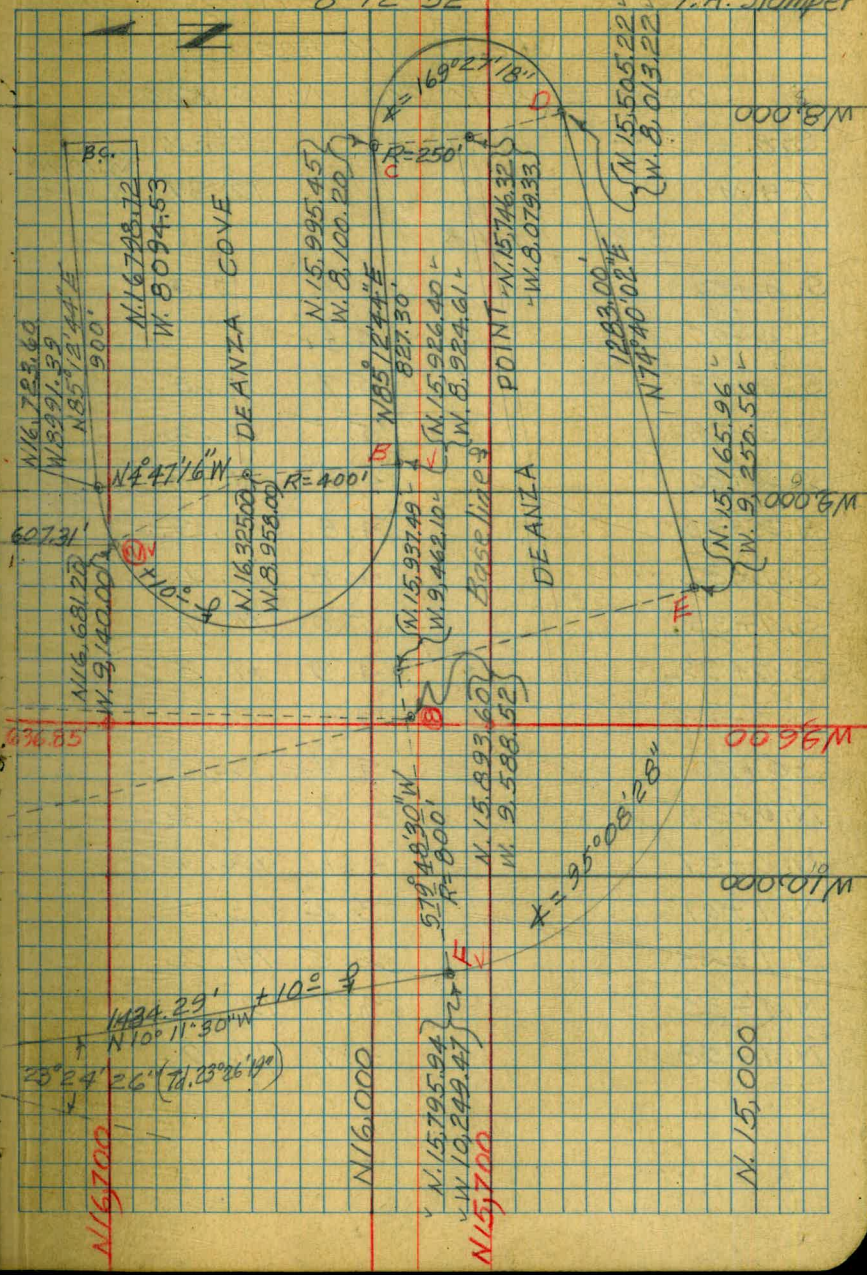
TO HORSE  
N13°12'56"E



Contd from Pg. 25

8-12-52

T.A. Stamper





17 July 52

(27)

x-sec's N. of De Anza. Cont'd

West 10,800

0+00 = W. 10,800 N. 18,500

Sta.	+	H.I.	-	Elev.	
T.B.M				12.87	W. 10,700 N. 18,500
	3.81	16.68			PX

S. 4+52 6.4 10.3.

S. 4+05 5.6 11.1.

S. 3+78 5.7 11.0.

S. 3+28 5.5 11.2.

S. 2+80 4.9 11.8.

S. 2+30 4.8 11.9.

S. 1+82 4.8 11.9.

S. 1+35 5.0 11.7.

S. 0+92 4.9 11.8.

S. 0+48 4.7 12.0.

0+00 4.7 12.0.

N. 0+38 4.5 12.2.

N. 0+97 4.1 12.6.

N. 1+01 3.2 13.5.

N. 1+23 2.5 14.2.

N. 1+35 4.7 12.0.

N. 1+58 4.7 12.0.

Note:

Cont'd from F.B. #78 Pg. 79

17 July 52

(28)

## X-Sec's N. of De Anza. Cont'd.

West 10,900

0+00 = W. 10,900 N. 18,500

Sta.	+	H.I.	-	Elev.
T.B.M.				12.03
	5.35	17.44		
N. 1+28			6.0	11.4
N. 1+05			5.0	12.4
N. 0+98			1.9	15.5
N. 0+78			2.6	14.8
N. 0+72			5.2	12.2
N. 0+40			4.9	12.5
0+00			5.3	12.1
S. 0+30			5.9	11.5
S. 0+51			10.7	6.7
S. 0+87			11.9	5.5
S. 1+25			12.8	4.6
S. 1+34			8.6	8.8
S. 1+62			8.2	9.2

W. 10,800

N. 18,500

PX

No Apparent change in this section.

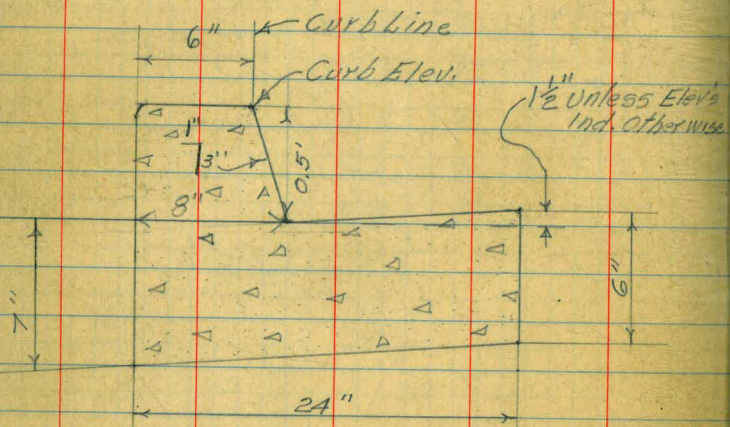
edge of rock at stabilizer

ROAD ALIGNMENT DE ANZA PT.

CURVE DATA

$\Delta = 7^{\circ}03'59''$   $R = 1825.4'$   $L = 225.13$   $d = .94164205$

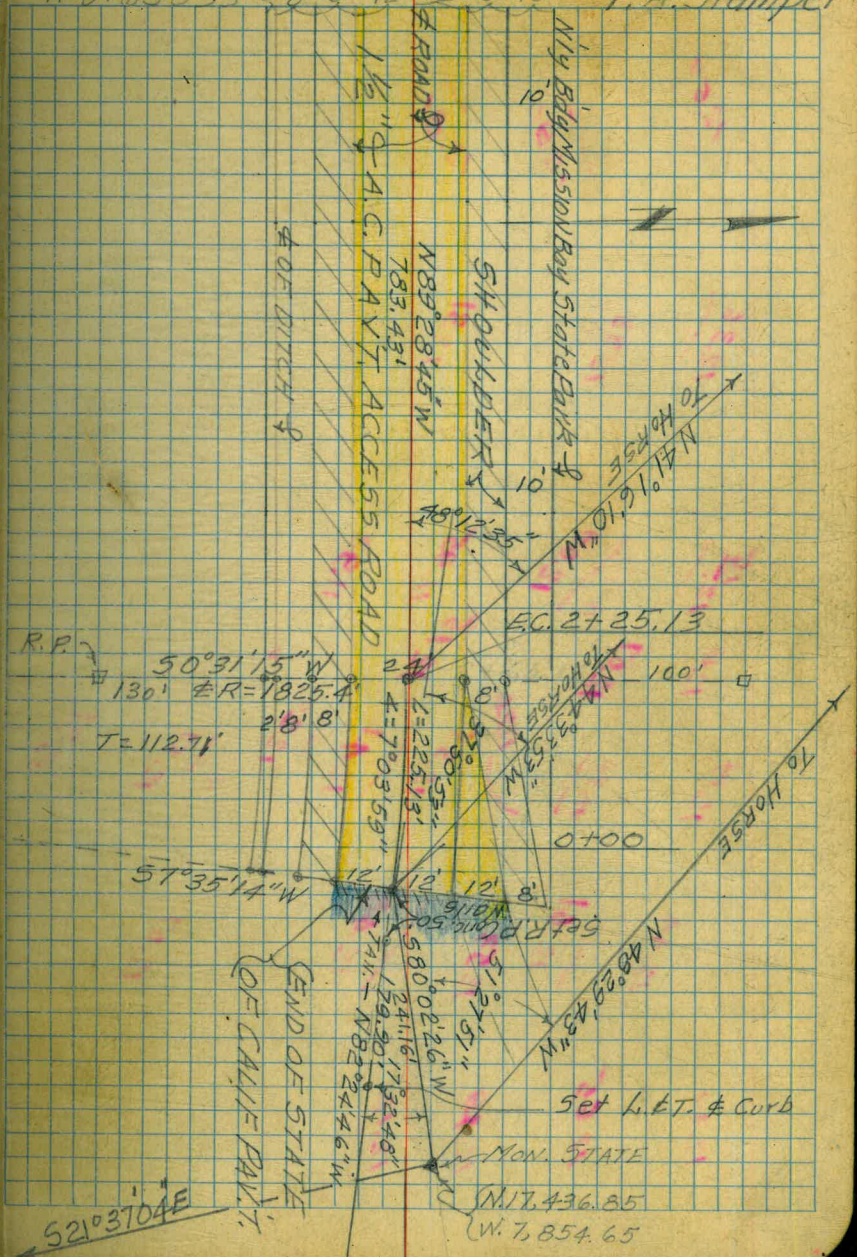
Sta.	Def $\Delta$	Chord
B.C. Lt. 0+00		
+25	$0^{\circ}23'32''$	25.00
+50	$0^{\circ}47'05''$	"
+75	$1^{\circ}10'37''$	"
1+00	$1^{\circ}34'10''$	"
+25	$1^{\circ}57'42''$	"
+50	$2^{\circ}21'15''$	"
+75	$2^{\circ}44'47''$	"
2+00	$3^{\circ}08'20''$	25.00
E.C. 2+25.13	$3^{\circ}32'00''$	25.13



STANDARD  
TYPE G CURB

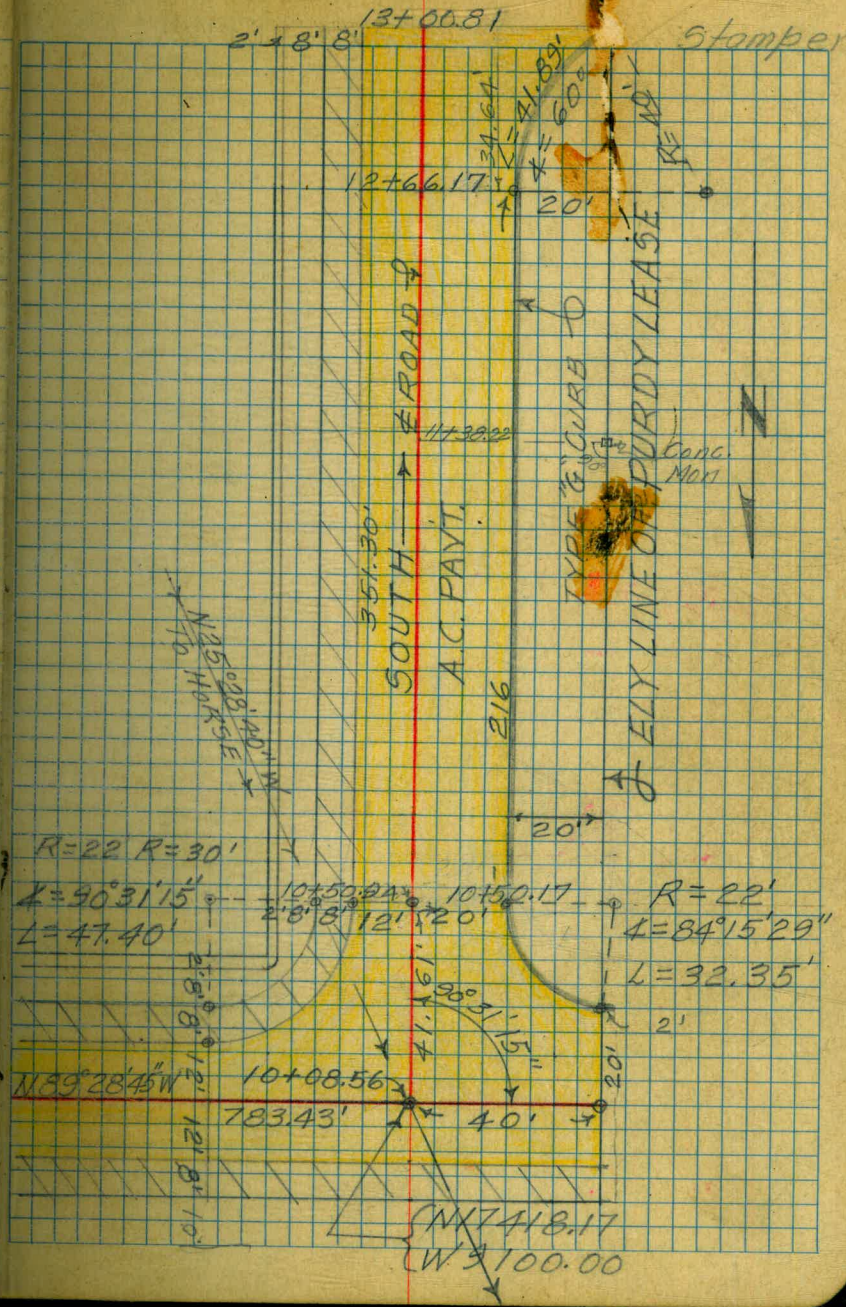
10+08.562  $\left\{ \begin{array}{l} N17418.17 \\ W9100.00 \end{array} \right.$  (29)

W.O. 65033 2'8" 8'12" 12'8" 10' T.A. Stamper



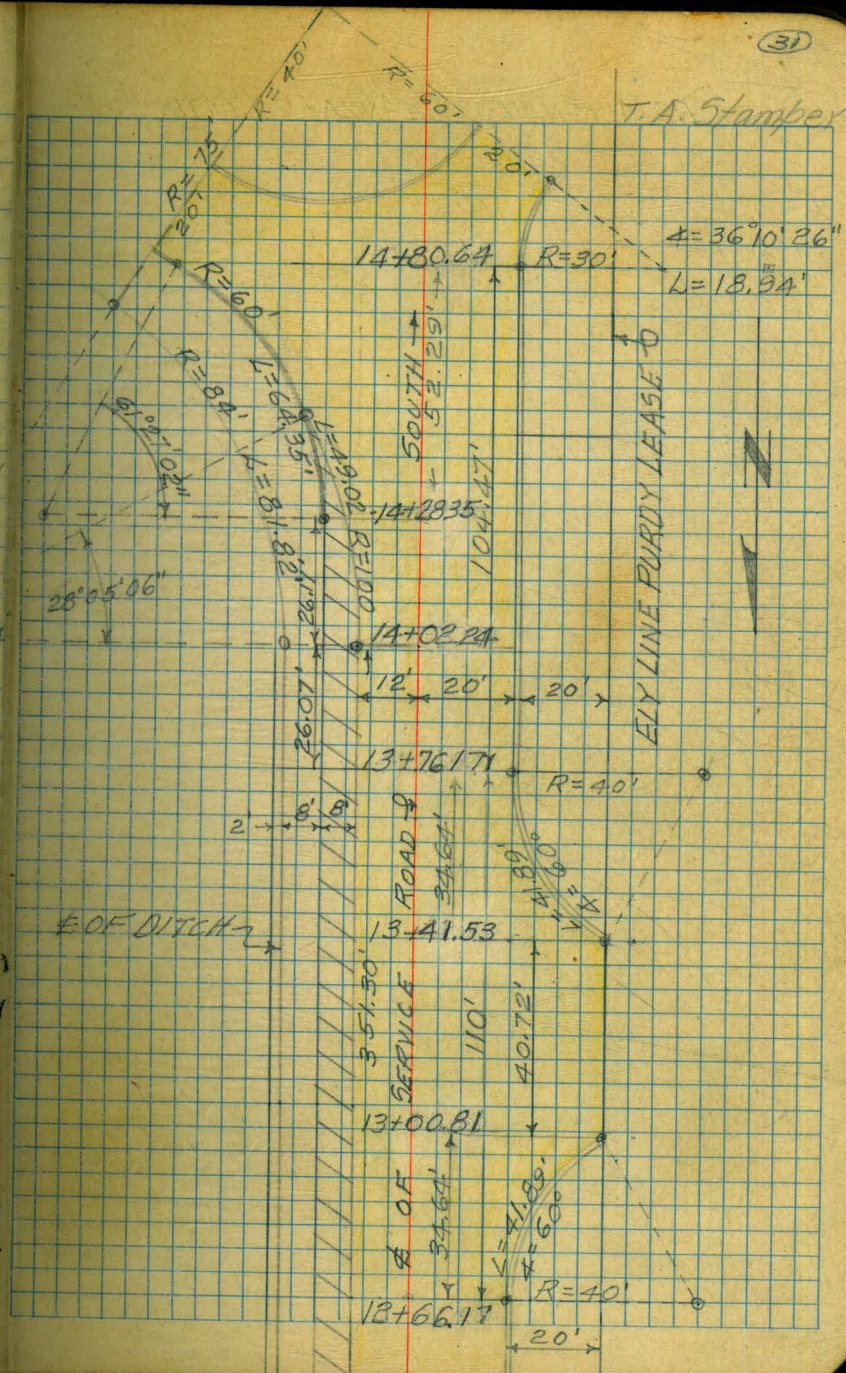
135300MB  
 NLY 50X MISSISSAUGA FAY STATE PARK  
 1915 EDWIN

INTERSECTION SUBGRADES  
 RD. ALIGNMENT DEANZAPT. CONTD.



RD ALIGNMENT DEANZA PT. CONTD.

T.A. Stampfer



RD. ALIGNMENT DE ANZA PT. CONTO.

Sta. object Distance

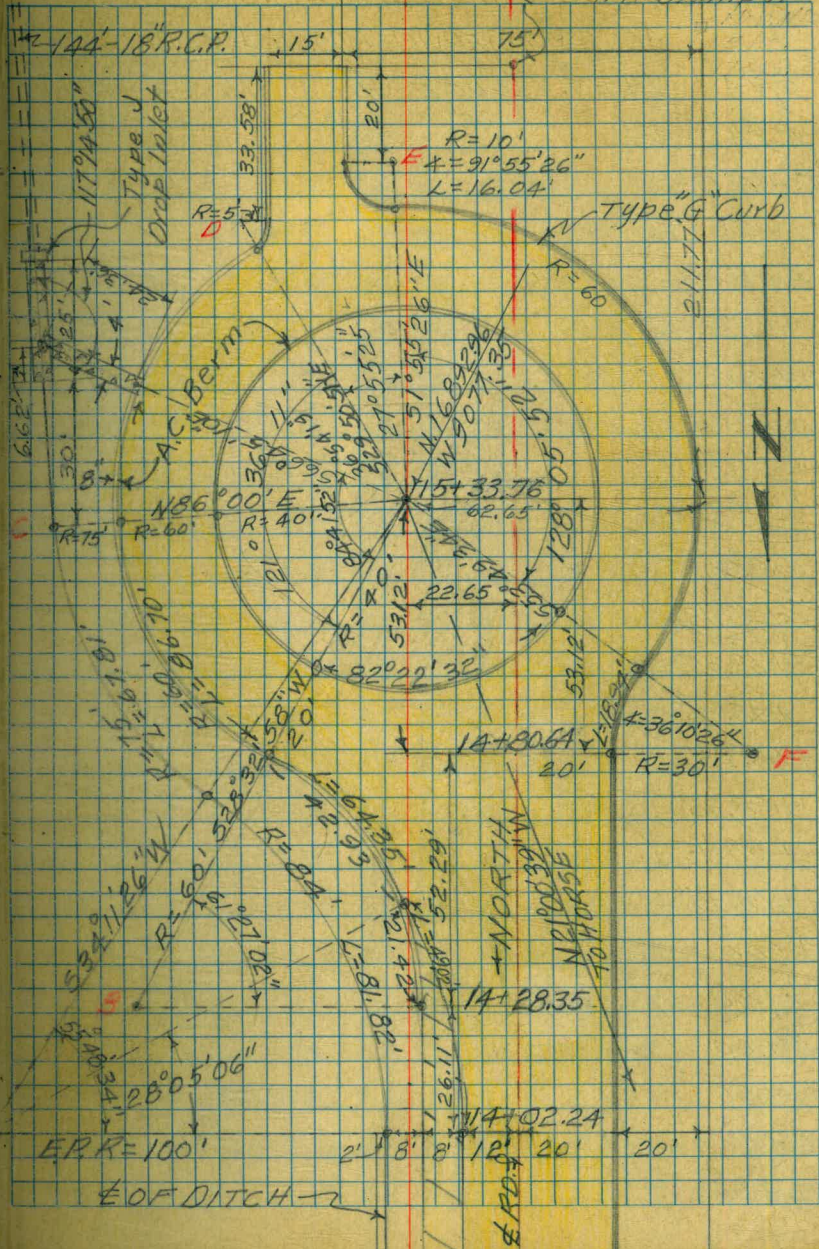
$\pi$ @  
 No 2 M.H.T. 19.26 Rd. Sta. 15+33.76  
 N. 16.681.20 No 3 M.H.T. N. 211.76 E. 62.65  
 W. 9,140.00

No 3 M.H.T. Rd. Sta. 10+08.56  
 N. 17288.51 No 2 M.H.T. N. 129.66 E. 40.00  
 W. 9,140.00 =  
 Rd Sta. 11+38.22

No 2 M.H.T.  
 N. 16.681.20  
 W. 9,140.00

2077.35  
 83  
 18992.35

Set 2x22  
 17+45.53 40' 20' (32)  
 T.A. Stamper



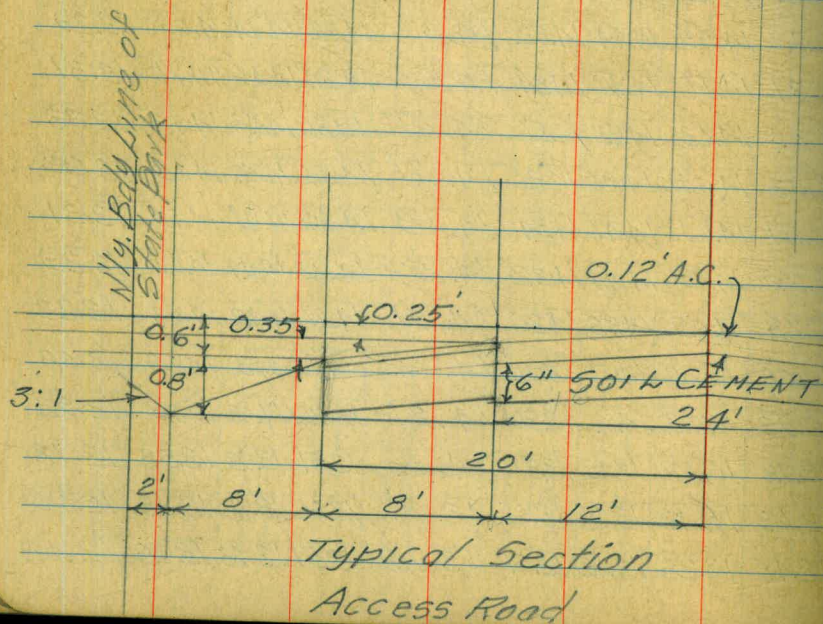
SUBGRADE ELEVATIONS OF ACCESS & SERVICE RDS. DE ANZA PT.

STA	ELEV.	LT. R.P. 10' HINGE	LT. HINGE	RT. R.P. 10' HINGE	RT. HINGE
B.M.		20' 12'	20' 12'	20' 12'	20' 12'
B.C.					
0+00					
+25					
+50					
+75					
1+00					
+25					
+50					
+75					
2+00					
E.C.					
2+25.13					
53.82					
+78.95					
20'					
+98.95					
20'					
3+18.95					
20'					
+38.95					
20'					
+58.95					
20'					
+78.95					
21.05					
4+00					
+50					
5+00					
+50					
6+00					
+50					

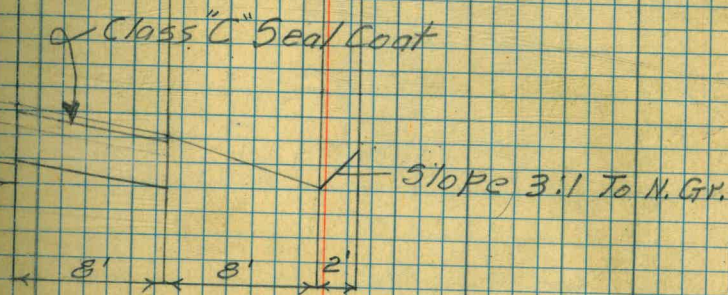
DITCH	LT.			S.G.R.	S.G.R.	RT.			DITCH
	FIN. SHLDR.	FIN. GRADE	FIN. GRADE			FIN. GRADE	FIN. SHLDR.		
28	20	12	12	0	12	12	20	28	
SUBGRADE									
12.45	13.35	13.60	13.48	13.73	13.98	13.60	13.25	12.45	
12.52	13.32	13.67	13.55	13.80	13.55	13.67	13.32	12.52	
12.60	13.40	13.75	13.63	13.88	13.63	13.75	13.40	12.60	
12.67	13.47	13.82	13.70	13.95	13.70	13.82	13.47	12.67	
12.75	13.55	13.90	13.78	14.03	13.78	13.90	13.55	12.75	
12.82	13.62	13.97	13.85	14.10	13.85	13.97	13.62	12.82	
12.90	13.70	14.05	13.93	14.18	13.93	14.05	13.70	12.90	
12.97	13.77	14.12	14.00	14.25	14.00	14.12	13.77	12.97	
13.05	13.85	14.20	14.08	14.33	14.08	14.20	13.85	13.05	
13.12	13.92	14.27	14.15	14.40	14.15	14.27	13.92	13.12	
13.29	14.09	14.44	14.32	14.57	14.32	14.44	14.09	13.29	
13.31	14.11	14.46	14.34	14.59	14.34	14.46	14.11	13.31	
13.33	14.13	14.48	14.36	14.61	14.36	14.48	14.13	13.33	
13.33	14.13	14.48	14.36	14.61	14.36	14.48	14.13	13.33	
13.31	14.11	14.46	14.34	14.59	14.34	14.46	14.11	13.31	
13.29	14.09	14.44	14.32	14.57	14.32	14.44	14.09	13.29	
13.23	14.03	14.38	14.26	14.51	14.26	14.38	14.03	13.23	
13.08	13.88	14.23	14.11	14.36	14.11	14.23	13.88	13.08	
12.93	13.73	14.08	13.96	14.21	13.96	14.08	13.73	12.93	
12.78	13.58	13.93	13.81	14.06	13.81	13.93	13.58	12.78	
12.63	13.43	13.78	13.66	13.91	13.66	13.78	13.43	12.63	
12.48	13.28	13.63	13.51	13.76	13.51	13.63	13.28	12.48	

SUBGRADES DE ANZA RD. CONTD.

Sta	LT. R.P. 10' ELEV. HINGE	LT. HINGE	RT. R.P. 10' HINGE	RT. HINGE
	20' 12"	20' 12"	20' 12"	20' 12"
7+00				
+50				
8+00				
+50				
9+00				
+28.18				
38				
+66.18				



LT. DITCH	LT. FIN. SHLDR.	LT. FIN. GR.	LT. SGR.	¢	S. GR.	RT. FIN. GR.	RT. FIN. SHLDR.	RT. DITCH
28'	20'	12'	12'		12'	12'	20'	28'
12.33	13.13	13.48	13.36	13.61	13.36	13.48	13.13	12.33
12.18	12.98	13.33	13.21	13.46	13.21	13.33	12.98	12.18
12.03	12.83	13.18	13.06	13.31	13.06	13.18	12.83	12.03
11.88	12.68	13.03	12.91	13.16	12.91	13.03	12.68	11.88
11.73	12.53	12.88	12.76	13.01	12.76	12.88	12.53	11.73
11.64	12.44	12.79	12.67	12.92	12.67	12.79	12.44	11.64
11.04	11.84	12.19	12.07	12.32	12.07	12.19	11.84	11.04



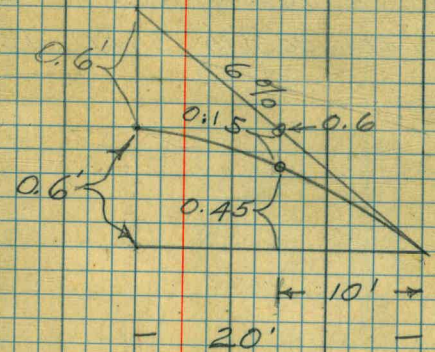


GRADES DEANZARD. CONT'D.

STA	LT. 10' R.R. HINGE	LT. HINGE
EC. RT. 10+50.17	20' 12"	20' 12"
EC. LT. 10+50.94		
11+00		
+50		
12+00		
+50		
B.C. CB. RT. +66.17		
13+00.81		
+41.53		
+76.17		
14+02.24		
+28.35		
+50		
+80.64		

Sta	Ditch	FIN. SHldr.	FIN. GRADE	SUB. GRADE	SUB. GRADE	SUB. GRADE	Grd.	CB.	BREAK	SLOPE TO P.L.
28'		20'	12'	12'	5'	10'	20'	20'	37'	
11.27		12.07	12.42	12.30	12.55	12.40	12.07	12.57	12.91	
11.27		12.07	12.42	12.30	12.55	12.40	12.07	12.57	12.91	
11.13		11.92	12.27	12.15	12.40	12.25	11.92	12.42	12.76	
11.00		11.77	12.12	12.00	12.25	12.10	11.77	12.27	12.61	
10.86		11.62	11.97	11.85	12.10	11.95	11.62	12.12	12.46	
10.72		11.47	11.82	11.70	11.95	11.80	11.47	11.97	12.31	
10.68		11.42	11.77	11.65	11.90	11.75	11.42	11.92	12.26	
10.58		11.32	11.67	11.55	11.80	11.65	12.30	12.80	12.76	
10.47		11.20	11.55	11.43	11.68	11.53	11.25	11.77	12.17	
10.38		11.09	11.44	11.32	11.57	11.42	11.09	11.59	11.93	
10.31		11.01	11.36	11.24	11.49	11.34	11.01	11.51	11.85	
		10.78			11.42	11.27	10.94	11.44	11.78	
					11.35	11.20	10.87	11.37	11.71	
					11.26	11.11	10.78	11.28	11.62	

5 3.85  
x 6  
150



Typical Road Crown Sec.

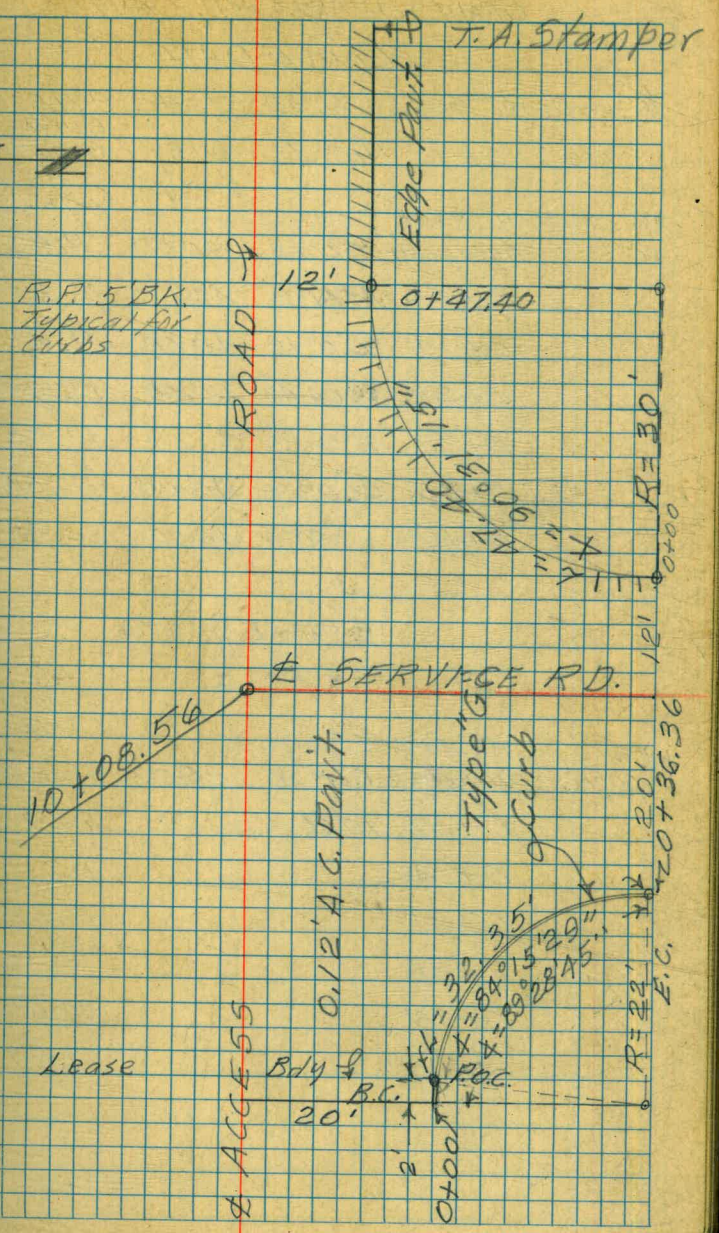
GRADES DEANZA RD. CONTO.  
CURB  
CURVE DATA

$\Delta = 84^{\circ}15'29''$  L = 32.35' R = 22' d = 78.1306

Sta	Obj	Int $\Delta$	DIST.	TOP CURB GRADE	ELEV
@ Center 22' R	0+00 B.C. ACCESS RD.	0° 00' 00"	22.00		12.82
0+10	0+12	26° 03' 15"	22.00		12.79
0+20	0+28	46° 53' 15"	22.00		12.68
0+28	0+28	68° 23' 15"	22.00		12.60
E.C.	0+36.36	89° 28' 45"	22.00		12.57

$\Delta = 90^{\circ}31'15''$  L = 47.40' R = 30' d = 57.29578

Sta	Obj	Int $\Delta$	DIST.	FIN- GRADE
@ Center 30' R	0+00 SERVICE RD.	0° 00' 00"	30.00	12.39
0+08	0+08	15° 16' 45"	30.00	12.37
0+16	0+16	30° 33' 30"	30.00	12.22
0+24	0+24	45° 50'	30.00	12.14
0+32	0+32	61° 07'	30.00	12.23
0+40	0+40	76° 23' 30"	30.00	12.32
E.C.	0+47.40	90° 31' 15"	30.00	12.42



GRADES DEANZA RD. CONT'D.

CURVE DATA

$\Delta = 60^\circ$  R=40' L=41.89 d=42.9718

Sta.	obj	Int. L	Dist	Grade	Elev	Cut
N@ Center B.C.N. Ref. 0+00 = 12+66.17						
40'R	Service Rd	0°00'00"	40.00		11.92	
		0+07 10°01'36"	40.00		11.93	
		0+14 20°03'12"	40.00		11.98	
		0+21 30°04'48"	40.00		12.08	
		0+28 40°06'25"	40.00		12.23	
		0+35 50°08'00"	40.00		12.50	
	E.C.	0+41.89 60°00'	40.00		12.80	

CURVE DATA

SAME

Sta.	obj	Int. L	Dist	Grade	Elev	Cut
N@ Center B.C. Entry = 13+41.53						
40'R	Trailer Park	0°00'00"	40.00		12.80	
		0+07 10°01'			12.40	
		0+14			12.10	
		0+21			11.88	
		0+28			11.73	
		0+35			11.65	
		0+41.89			11.59	

GRADES DEANZA RD. CONT'D.

CURVE DATA

Lt. Edge Paving

$\Delta = 28^{\circ}05'06''$   $R = 100'$   $L = 49.02$   $d = 17.188134$

Sta Obj Int.  $\angle$  Elev. <sup>Fin.</sup> Grade Cut

<sup>RR 5'</sup>  
 $R = 100'$

Sta	Obj	Int. $\angle$	Elev.	Fin. Grade	Cut
⊗ @ Center B.C.Lt.					
100' R	14+02.24	0°00'00"	11.36		
	7.76				
	+10	4°26'45"	11.25		
1.306%	✓ +20	10°10'30"	11.98	11.12	0.86
	+30	15°54'20"		10.98	
✓ +40	21°38'	11.92	10.84	1.08	
E.C.	+51.26	28°05'06"	11.73	10.69	1.04

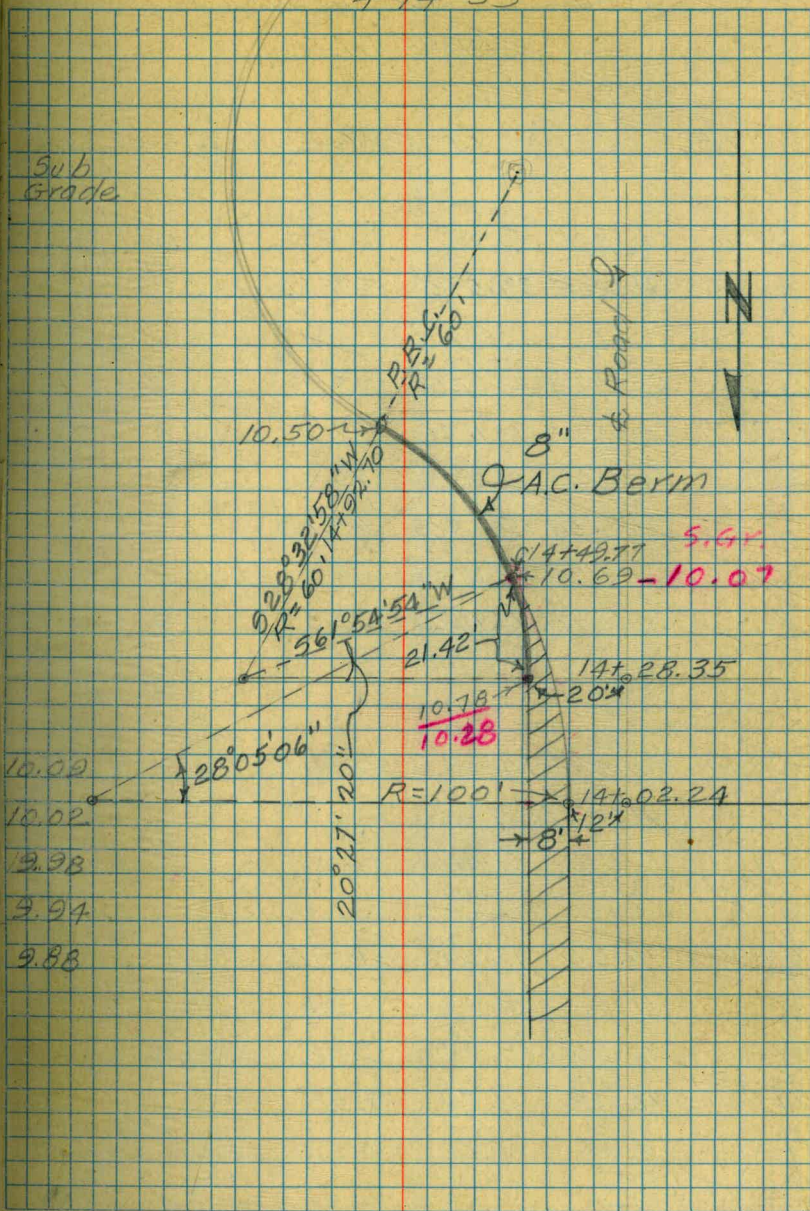
$\Delta = 61^{\circ}27'02''$   $R = 60'$   $L = 64.35$   $d = 29.61789$

<sup>R.R. 5'</sup>  
 $R = 60'$

⊗ @ Center B.C.Lt. <sup>5th St. @ Reg. A.C.</sup>

Sta	Obj	Int. $\angle$	Elev.	Fin. Grade	Cut
60' R	14+28.35	0°00'00"	10.78		
Edge of Pav't. →					
✓	14+42.77	20°27'15"	11.73	10.69	1.04
✓ +60	30°13'20"	11.54	10.64	0.90	
✓ +70	39°46'25"	11.48	10.60	0.88	
✓ +80	49°19'20"	11.53	10.56	0.57	
P.R.C.	+92.70	61°27'02"	11.63	10.50	1.13

4-14-53



GRADES DEANZARD CONT'D.

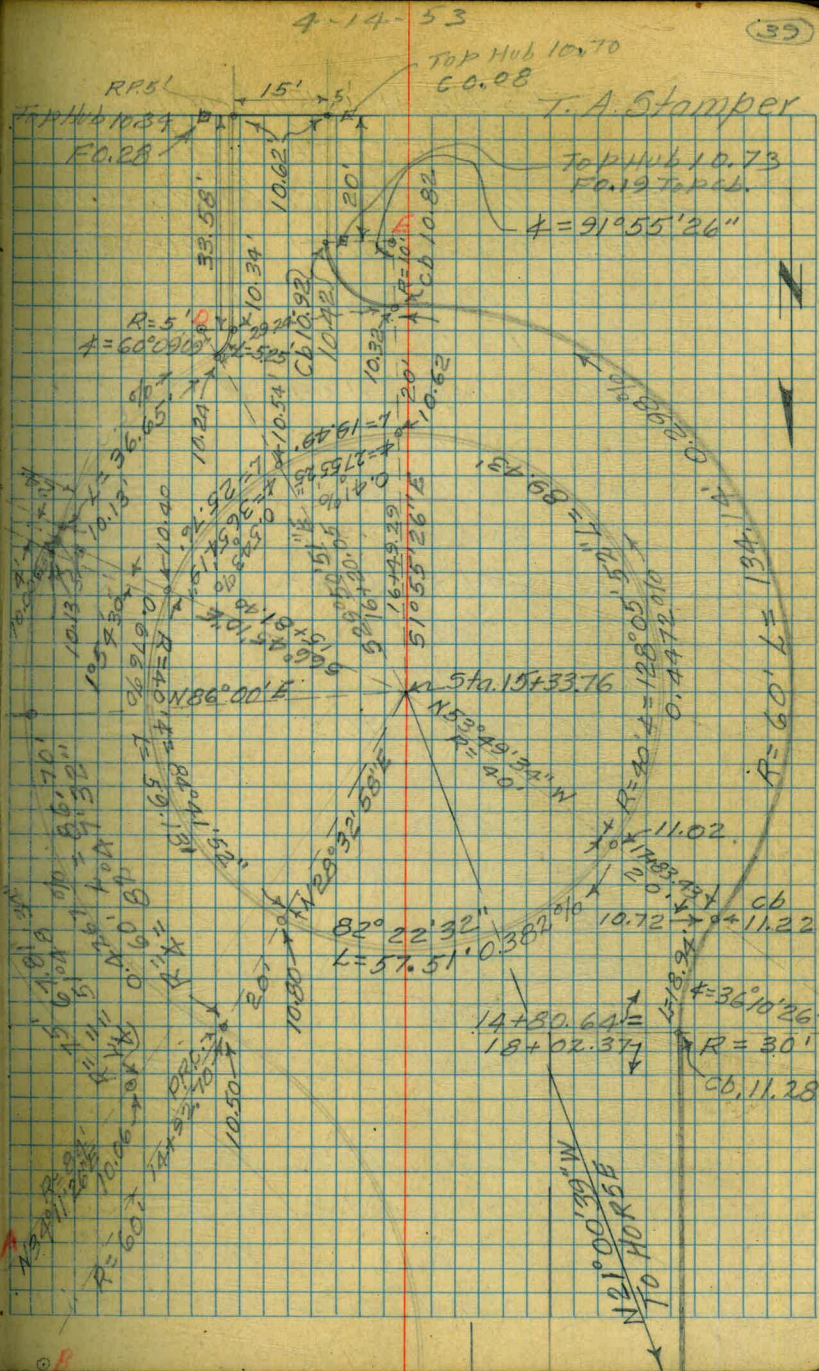
CURVE DATA

NOTE: SEE NEXT PAGE

Sta	object	Azim	dist.
	HORSE	338°53'21"	2638.26"
	"B" (see Pg 32)		
15+33.76	Center 60R	28°32'58"	120.00
	"A"		
	Center 84R	34°11'26"	159.00
	"C"		
	EC of Ditch	86°00'00"	75.00
	"D"		
	Center 5R	150°09'09"	65.00
	"E"		
	Center 10R	178°04'34"	70.00
	"F"		
	Center 30R	306°10'26"	90.00

NOTE: Finish Grades are Shown on Sketch at Rt.

Sta.	Elev.	Grade	Cut	
0+27	10.50	11.00	F0.50	
0+25	10.61	9.67	0.94	N. Face Inlet
0+00	10.35	9.77	0.58	N. End
0+08.62 =				
0+24.36 P.I. =	10.32	9.74	0.58	
0+00	9.48	10.00	F0.52	W.L.Y. Line
B.M.				
	12.39			See P. 41



4-14-53

(39)

Top Hub 10.70  
C.O. 0.08

T.A. Stamper

Top Hub 10.73  
F.O. 19 Top R.L.

$\Delta = 91^{\circ}55'26''$

Sta. 15+33.76

$N 53^{\circ}49'34'' W$   
 $R = 40'$

$82^{\circ}22'32''$   
 $L = 57.51 \cdot 0.382$

14+80.64  
18+02.37

$\Delta = 36^{\circ}10'26''$   
 $R = 30'$

cb. 11.28

$N 21^{\circ}00'13'' W$   
TO HORSE

GRADES DE ANZA RD. CONTD.

4-14-53

CURVE DATA R=40'

R.P. 5' R=60' FIN - GRADE ELEV. CUT. NOTE: See Sketch Pg. 39 A.C. = 0.12' Thick.

Sta	Object	Int $\angle$	Elev.	FIN - Grade	Cut	
	P.P.C. 14+92.70	0°00'00"	11.21	10.80	0.41	
	$\pi$ @ Center 40' R.O.	15+00	6°58'15"	11.21	10.77	0.44
	+10	16°31'13"		10.72		
	+20	26°04'10"	11.09	10.68	0.41	
	+30	35°37'08"		10.63		
	+40	45°10'05"	10.73	10.59	0.14	
	+50	54°43'03"		10.54		
	+60	64°16'00"	10.63	10.50	0.13	
	+70	73°49'		10.45		
	+79.40	82°47'30"		10.41		
	+81.40	84°42'	10.57	10.40	0.17	
	+83.40	86°36'45"		10.41		
	+90	92°54'53"		10.43		
	16+00	102°28'	10.83	10.47	0.36	
	+10	112°01'		10.50		
	+20.05	121°36'30"	10.99	10.54	0.45	
	+30	131°06'45"		10.57		
	+40	140°39'40"		10.59		
	+49.29	149°32'	10.96	10.62	0.34	
	+60	159°45'30"	11.12	10.65	0.47	
	+70	169°18'30"		10.68		
	+80	178°51'30"	11.22	10.71	0.51	

10.50	11.62	1.12	
10.47	11.52	1.05	
10.43			
10.38	11.19	0.71	
10.34			
10.30	10.92	0.62	
10.25			
10.21	10.81	0.60	
10.17			
10.13			
10.00	10.51	0.51	$\phi$ of Conc. Lined Ditch
10.13			
10.14			
10.17	10.42	0.25	
10.20			
10.24	10.59	0.35	
10.27			
10.29			
10.82	10.90	0.08	
10.85	11.28	0.43	
10.88			
10.91	11.92	1.01	

B.M. 12.39 See Pg 41

GRADES DEANZA RD. CONTD.

Sta @ Center 40' R O	Object	Int $\angle$	Elev.	Grade	Cut
				<u>R=40'</u>	
16+90		188°24'30"		10.74	
✓	17+00	197°57'30"	11.84	10.77	1.07
	+10	207°30'20"		10.80	
✓	+20	217°03'20"	11.97	10.83	1.14
	+30	226°36'15"		10.86	
✓	+40	236°09'15"	11.97	10.89	1.08
	+50	245°42'10"		10.92	
✓	+60	255°15'10"	11.96	10.95	1.01
	+70	264°48'		10.98	
	+80	274°21'		11.01	
✓ P.R.C.	+83.43	277°37'36"	11.93	11.02	0.91
① @ Center 30' R. "F"	4 = 36°10'26" L = 18.94 d = 57.29578 x 2.0				
	17+83.43	0°00'00"			
	+90	12°33'			
	+95	22°06'			
	18+02.37	36°10'26"			
	14+80.64				

Grade Top Ch.	Elev	Cut
<u>R=60'</u>		
10.94		
10.97	11.71	0.74
11.00		
11.03	11.74	0.71
11.06		
11.09	11.46	0.37
11.12		
11.15	11.94	0.79
11.18		
11.21		
11.22	12.38	1.16
<u>R=30'</u>		
11.22		
11.24		
11.26		
11.28		

NOTE: See sketch p. 39

B.M. 12.39  $\leftarrow$

B.M. 9.83

Set Chris/11 on N.W. Cor. of North Parch to Pump House De Anza Point.

GRADES DEANZA RD. CONT'D.

Sta.	Object	Int'l	Elev.	FIN = Grade	+ Cut
$R=40'$ @ center					
No Center 40' R.O. $\phi = 82^\circ 22' 32''$ $L = 57.51$ $d = 42.971835 \times 2.0$					
	17+83.43	0°00'00"	12.38	11.02	1.36
	+90	9°24'40"	"	10.99	
✓	18+00	23°44'	11.16 <sup>v</sup>	10.95	0.21
	+10	38°03'30"	"	10.91	
✓	+20	52°23'	11.15 <sup>v</sup>	10.88	0.27
	+30	66°42'30"	"	10.84	
✓	18+40.91 14+92.70	82°22'32"	11.21 <sup>v</sup>	10.80	0.41

NOTE: See sketch Pg. 39



GRADES DE ANZA RD CONTD

DRAINAGE DITCH

sta object Int  $\angle$  Dist Grade  $\pm$   
 P.C. @ Center 84' R "A"  $\phi = 55^\circ 48' 34''$  L = 81.82' d @ ctr = 40.92555714  
 B.C. Lt.  $d = 20.46277857$

0+00 =	14+02.24	0°00'	10.31		
.305%	0+25	17°03'08"	10.23	11.57	C1.34
	0+50	34°06'17"	10.16	11.55	C1.30
	0+75	51°09'25"	10.08	11.65	C1.57

P.R.C. 0+81.82 55°48'34" 10.06 11.65 C1.59  
 P.C. @ Center 75' R  $\phi = 51^\circ 48' 34''$  L = 67.81' d @ ctr = 45.83662913.4'  
 $d = 22.918312$

.295%	1+00	13°53'19"	10.01	11.81	C1.80
	+25	32°59'13"	9.93	11.38	C1.45
.E.C.	+49.63	51°48'34"	9.86	11.06	C1.20
	+65		9.81	10.71	C0.90
.3%	1+74.63		9.77	10.74	C0.79
	1+88.25		9.74	5	
	2+04.63		9.67		

11.00

4-21-53

Req. Conc. Lined Ditch

End. Conc. Ditch @ Drop Inlet (Type "J")

Type "J" Drop Inlet Top Elev.

NOTE: See Sketch Pg. 39-38

4-14-53

GRADES OF 18" R.C.P. DEANZA

Sta	+	H.I.	-	Elev.	Grade	Cut	
B.M.				12.39	See Pg. 41		NOTE: See sketch Pg. 39
0+00				10.80	7.40	3.40	Outlet Elev. Type J Inlet
+25				10.40	6.98	3.42	
+50				10.16	6.57	3.59	
+75				10.36	6.15	4.21	
1+00				10.09	5.73	4.36	minimum Elev. Cut
+20				9.45	5.40	4.05	3.40
+28				7.94	5.27	2.67	3.27
+36				7.16	5.13	2.03	3.13
+44				5.08	5.00	0.08	3.00
				10.80	9.67	1.13	Inlet Elevation
				10.80	11.00	0.20	Top of M.H. Elevation

1.666 %

sub-grade for  
cong. piers

GRADES ACCESS & SERVICE  
ROADS DEANZA PT. N.O. 65033

Sta.	H.I.	Elev.
B.M.	← L.F.	13.22
	1:3 TO NAT.GR. DITCH	12.90
	FIN. SHLDR	13.70
	SUB-GR.	13.93
+50		
		12.82 13.62 13.85
+25		
		12.75 13.55 13.78
+00		
		12.67 13.47 13.70
+75		
		12.60 13.40 13.63
+50		
		12.52 13.32 13.55
+25		
		12.45 13.25 13.48
B.C. L.F. 0+00		28 20 12

RT	Elev.
Chiseled Cross on East End of 60" Culv. Hd Wall	
On North Side of Entrance to De Anza Point.	
SUB-GRADE SUB-GRADE FIN. SHLDR DITCH 1:3 TO NAT.GR.	
	14.18 13.93 13.70 12.90
	14.10 13.85 13.62 12.82
	14.03 13.78 13.55 12.75
	13.95 13.70 13.47 12.67
	13.88 13.63 13.40 12.60
	13.80 13.55 13.32 12.52
	13.73 13.48 13.25 12.45
	0 12 20 28

DE ANZA RD. GRADES CONTD.

Sta	H. I.	Elev		
	1:3 TO NAT. GROUND	DITCH	FIN. SHLDR.	SUB-GRADE
	← Lt.			
	13.33	14.13	14.36	
+38.95				
	13.33	14.13	14.36	
3+18.95				
	13.31	14.11	14.34	
+98.95				
	13.29	14.09	14.32	
+78.95				
	13.12	13.92	14.15	
EC. +25.13				
	13.05	13.85	14.08	
2+00				
	12.97	13.77	14.00	
1+75	28	20	12	

SUB-GRADE	SUB-GRADE	FIN. SHLDR.	DITCH	1:3 TO NAT. GROUND
		RT		
14.61	14.36	14.13	13.33	
14.61	14.36	14.13	13.33	
14.59	14.34	14.11	13.31	
14.57	14.32	14.09	13.29	
14.40	14.15	13.92	13.12	
14.33	14.08	13.85	13.05	
14.25	14.00	13.77	12.97	
0	12	20	28	

DEANZARD GRADES CONTD.

Sta.	H.I.	Elev.			
	← 1:3 to NAT. GR	11.3 to NAT. GR	FIN. SHOULDR	SUB-GRADE & Edge Path	
6+00	12.63	13.43	13.66		
	28	20	12		
+50	12.78	13.58	13.81		
	28	20	12		
5+00	12.93	13.73	13.96		
	28	20	12		
+50	13.08	13.88	14.11		
	28	20	12		
4+00	13.23	14.03	14.26		
	28	20	12		
+78.95	13.29	14.09	14.32		
	28	20	12		
3+58.95	13.33	14.13	14.34		
	28	20	12		

SUB-GRADE	SUB-GRADE	FIN. SHOULDR.	DITCH	11.3 to NAT. GR
13.91	13.66	13.43	12.63	
0	12	20	28	
14.06	13.81	13.58	12.78	
0	12	20	28	
14.21	13.96	13.73	12.93	
0	12	20	28	
14.36	14.11	13.88	13.08	
0	12	20	28	
14.51	14.26	14.03	13.23	
0	12	20	28	
14.57	14.32	14.09	13.29	
0	12	20	28	
14.59	14.34	14.13	13.33	
0	12	20	28	

DE ANZA RD. GRADES CONTD.

Sta.	+ H.I.	- Elev.			
	←		1:3 TO NAT. GR.	4. DITCH	FIN. SHOUL. SUB-GRADE
+28.18			11.64	12.44	12.67
9+00			11.73	12.53	12.76
+50			11.88	12.68	12.91
8+00			12.03	12.83	13.06
+50			12.18	12.98	13.21
7+00			12.33	13.13	13.36
6+50			12.48	13.28	13.51
			28	20	12

SW. OF GRADE	SUB-GRADE	RT. SHOUL. FIN.	4. DITCH	1:3 TO NAT. GROUND
12.92	12.67	12.44	11.64	
13.01	12.76	12.53	11.73	
13.16	12.91	12.68	11.88	
13.31	13.06	12.83	12.03	
13.46	13.21	12.98	12.18	
13.61	13.36	13.13	12.33	
13.76	13.51	13.28	12.48	
0	12	20	28	

DE ANZA RD. GRADES CONTD.

Sta	4.1	F/101	SUB GRADE
	# DITCH	FIN. SKIDR.	
	1:6 TO NAT. GR.		
	10.72	11.47	11.70
12+50	28	20	12
	10.86	11.62	11.85
12+00	28	20	12
	11.00	11.77	12.00
+50	28	20	12
	11.13	11.92	12.15
11+00	28	20	12
	11.27	12.07	12.30
E.C.L.T. 10+50.24	28	20	12
E.C.R.T. 10+50.17			
	1:3 TO NAT. GR.		
	11.04	11.84	12.07
9+66.18	28	20	12

SUB GRADE	SUB- GRADE	FIN. GUT	TOP CURB	14" FT.	10.3' from PROP.	Daylight on Prop.
11.95	11.80	11.47	11.97	12.31		
0	10	20	20	37	40	
12.10	11.95	11.62	12.12	12.46		
0	10	20	20	37	40	
12.25	12.10	11.77	12.27	12.61		
0	10	20	20	37	40	
12.40	12.25	11.92	12.42	12.76		
0	10	20	20	37	40	
12.55						
0						
12.55	12.40	12.07	12.57	12.91		
0	10	20	20	37	40	
			20			
			# Ditch	1:3 TO NAT. GR.		
12.32	12.07	11.84	11.04			
0	12	20	28			

DEANZA RD GRADES CONT'D.

Sta	H.L.	Elev.		
	←		Lt.	
			FIN	SUB
14+80.64			DITCH	SHLDR GRADE
+50				
+28.35				
	10.31	11.01	11.24	
14+02.24	28	20	12	
	10.38	11.09	11.32	
+76.17	28	20	12	
	10.47	11.20	11.43	
+41.53	28	20	12	
	10.58	11.32	11.55	
13+00.81	28	20	12	
	10.68	11.42	11.65	
12+66.17	28	20	12	

(50)

Sta	SUB- GRADE	FIN. GR.	TOP CURB	IN/FT TO S.O.F.	PROP.	DAYLIGHT AT PROP.
11.26	11.11	10.78	11.28	11.62		
10	10	20	20	37	40	
11.35	11.20	10.87	11.37	11.71		
0	10	20	20	37	40	
11.42	11.34	11.01	11.51	11.85		
0	10	20	20	37	40	
11.49	11.34	11.01	11.51	11.85		
0	10	20	20	37	40	
11.57	11.42	11.09	11.59	11.93		
0	10	20	20	37	40	
11.68	11.53	11.20	12.80	See sketch B.31		
0	10	20	40			
11.80	11.65	11.32	12.80			
0	10	20	40			
11.90	11.75	11.42	11.92	12.26		
0	10	20	20	37	40	



FINISH GRADES DE ANZARD.

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(51)

Sta	H.I	South Ditch	Edge Shoulder	Lt. Edge Pavt
		C0.90	C0.10	F0.25
+50	13.80 35.7	12.90 28	13.70 20	14.05 12
		C0.90	C0.10	F0.25
+25	13.72 35.7	12.82 28	13.62 20	13.97 12
		C1.00	C0.20	F0.15
1+00	13.75 36	12.75 28	13.55 20	13.90 12
		C1.00	C0.20	F0.15
+75	13.67 36	12.67 28	13.47 20	13.82 12
		C1.05	C0.25	F0.10
+50	13.65 36	12.60 28	13.40 20	13.75 12
		C1.00	C0.20	F0.15
+25	13.52 36	12.52 28	13.32 20	13.67 12
B.C. Lt. 0+00		12.45 28	13.25 20	13.60 12
B.M.			13.22	

NOTE: Red indicates Subgrades

Sta	Edge Pavt	Edge Shoulder	Ditch	3
	F0.75	F0.40	C0.40	
+F0.50 F1.00 →	13.68 14.30	14.05 12	13.70 20	12.90 28
	13.30			13.30
	29.0			
	F0.65	F0.30	C0.50	
+F0.50 F0.90 →	13.60 14.22	13.97 12	13.62 20	12.82 28
	13.82			13.82
	29.5			
	F0.65	F0.30	C0.50	
+F0.40 F0.90 →	13.53 14.15	13.90 12	13.55 20	12.75 28
	13.25			13.25
	29.7			
	C0.65	C0.40	C1.20	
+F0.40 F0.20 →	13.45 14.07	13.82 12	13.47 20	12.67 28
	13.87			13.87
	31.6			
	C0.65	C0.80	C1.60	
+F0.35 C0.20 →	13.30 14.00	13.75 12	13.40 20	12.60 28
	14.20			14.20
	32.8			
	C0.15	C0.30	C1.30	
+F0.40 F0.10 →	13.30 13.92	13.67 12	13.32 20	12.52 28
	13.82			13.82
	31.9			
	13.60	13.25	12.45	
+F0.23 13.85	13.85	12	20	28

chis. □ on E. End 60" Culvert wall N. Side Entrance Rd.

FINISH GRADES DEANZA RD. CONTD.

4-21-53

Sta.	H.L.	Edge	Edge
TP		SALTY	PAV
		0.0	0.0
+38.95	14.13 35.4	13.33 28	14.13 20
		0.0	0.0
3+18.95	14.13 35.4	13.33 28	14.13 20
		0.0	0.0
+38.95	14.01 35.1	13.31 28	14.11 20
		0.0	0.0
+78.95	14.09 35.4	13.29 28	14.09 20
		0.0	0.0
E.C.		0.0	0.0
2+25.13	14.12 36	13.12 28	13.92 20
		0.0	0.0
2+00	13.95 35.7	13.05 28	13.85 20
		0.0	0.0
1+75	13.97 36	12.97 28	13.77 20

Edge	Edge	Edge	Edge
PAV	SALTY	DITCH	DITCH
+F0.60	F0.65	F0.30	C0.50
14.12	14.48	14.13	13.33
14.13	12	20	28
0			
+F0.60	F0.65	F0.30	C0.50
14.12	14.48	14.13	13.33
14.13	12	20	28
0			
+F0.70	F0.65	F0.30	C0.50
14.09	14.46	14.11	13.31
14.71	12	20	28
0			
+F0.60	F0.95	F0.60	C0.20
14.07	14.44	14.09	13.29
14.69	12	20	28
0			
+F0.10	F0.75	F0.40	C0.40
13.90	14.27	13.92	13.12
14.52	12	20	28
0			
+F0.50	F0.65	F0.30	C0.50
13.83	14.20	13.85	13.05
14.45	12	20	28
0			
+F0.40	F0.95	F0.60	C0.20
13.75	14.12	13.77	12.97
14.37	12	20	28
0			

4-21-53

FINISH GRADES DEANZA RD. CONTD

Sta.	+ H.I.	-	Elev.						
	<del>Double @ 1:3</del>	South	Lt.	Edge	Edge	RT. North	Edge	Edge	<del>1:3</del>
		Ditch	Shldr	Shldr	Shldr		Shldr	Shldr	Ditch
		C1.10	C0.30	F0.05	<del>F0.40</del>				
					F1.20 →	F0.95	F0.60	C0.20	
6+00	13.73 36.3	12.63 28	13.43 20	13.78 12	<del>13.41</del> 14.03	13.78 12	13.43 20	12.63 28	12.83 28.6
		C1.00	C0.20	F0.15	<del>F0.40</del>				
					F1.10 →	F0.85	F0.50	C0.30	
+50	13.78 36	12.78 28	13.58 20	13.93 12	<del>13.56</del> 14.18	13.93 12	13.58 20	12.78 28	13.08 28.9
		C0.90	C0.10	F0.25	<del>F0.50</del>				
					F1.00 →	F0.75	F0.40	C0.40	
5+00	13.83 35.7	12.93 28	13.73 20	14.08 12	<del>13.71</del> 14.33	14.08 12	13.73 20	12.93 28	13.33 29.2
		C0.8	0.0	F0.35	<del>F0.60</del>				
	13.29				F1.00 →	F0.45	F0.10	C0.70	
+50	13.88 35.4	13.08 28	13.88 20	14.23 12	<del>13.86</del> 14.49	14.23 12	13.88 20	13.08 28	13.78 30.1
		C0.7	F0.10	F0.45	<del>F0.70</del>				
					F1.00 →	F0.75	F0.40	C0.40	
4+00	13.93 35.1	13.23 28	14.03 20	14.38 12	<del>14.01</del> 14.63	14.38 12	14.03 20	13.23 28	13.63 29.2
		C0.70	F0.10	F0.45	<del>F0.70</del>				
					F1.20 →	F0.95	F0.60	C0.20	
+78.95	13.99 35.1	13.29 28	14.09 20	14.44 12	<del>14.07</del> 14.69	14.44 12	14.09 20	13.29 28	13.49 28.6
		C0.70	F0.10	F0.43	<del>F0.68</del>				
					F0.88 →	F0.65	F0.30	C0.50	
3+58.95	14.03 35.1	13.33 28	14.13 20	14.46 12	<del>14.09</del> 14.71	14.46 12	14.13 20	13.33 28	13.83 30.5

FINISH GRADES DEANZARD CONTD

Contd For this Area Page 59

Sta	H.I		Elev		±	RT North			Dw/ite@1.3
	+ Ditch	South Lt.	E. Side	E. Pavt.		E. Pavt.	E. Side	E. Ditch	
		C3.10	C2.30	C1.95	+C1.70	F0.25	C0.10	C0.90	
+66.18	14.14 42.3	11.04 28	11.84 20	12.19 12	12.44 +C1.10	12.19 F0.55	11.84 F0.20	11.04 C0.60	11.94 30.7
+28.18	14.14 40.5	11.64 28	12.44 20	12.79 12	12.44 +C1.10	12.79 F0.50	12.44 C0.10	11.64 C0.90	12.24 30.7
9+00	14.23 40.5	11.73 28	12.53 20	12.88 12	13.13 +C0.90	12.88 F0.50	12.53 C0.10	11.73 C0.90	12.63 30.7
+50	14.18 39.9	11.88 28	12.68 20	13.03 12	13.28 +C0.90	13.03 F0.50	12.68 C0.30	11.88 C0.50	12.38 29.5
8+00	14.13 39.3	12.03 28	12.83 20	13.16 12	13.43 +C0.70	13.18 F0.80	12.83 F0.20	12.03 C0.60	12.63 29.8
+50	13.98 38.4	12.18 28	12.98 20	13.33 12	13.58 +C0.40	13.33 F1.20	12.98 F0.60	12.18 C0.20	12.38 28.6
7+00	13.93 37.8	12.33 28	13.13 20	13.48 12	13.73 +C0.20	13.48 F1.30	13.13 F0.70	12.33 C0.10	12.43 28.3
6+50	13.98 36.5	12.48 28	13.28 20	13.63 12	13.88 +C0.10	13.63 F1.30	13.28 F0.70	12.48 C0.10	12.58 28.3

T.P.

13.97.

FINISH GRADES DEANZA RD. CONTD.

Sta	H.I.	Elev.		
		EAST LT.		
		Edge Ditch	Edge Shldr	Edge Pavt
B.C. RT. CB. R=40' 12+66.17	13.18 48.0	10.68 28	11.42 20	11.77 12
		C2.50	C1.76	C1.41
+50	13.02 46.8	10.72 28	11.47 20	11.82 12
		C2.30	C1.55	C1.20
12+00	13.46 48.6	10.86 28	11.62 20	11.97 12
		C2.50	C1.84	C1.49
+50	13.70 49.2	11.00 28	11.77 20	12.12 12
		C2.70	C1.93	C1.58
11+00	13.73 51.6	11.13 28	11.92 20	12.27 12
		C2.60	C1.81	C1.46
E.C. LT. E. PR=30' 10+50.24	14.17 50.4	11.27 28	12.07 20	12.42 12
		C2.90	C2.10	C1.75
E.C. RT. CB. R=22' 10+50.17				
B.M.			13.60	13.555

RT. WEST	Gut	CB	Ditch @ 40'	
C0.74 →	C0.89	C1.34	C0.84	C0.50
12.02 0	11.87 10	11.42 20	11.92 20	12.26 37
				48.5 RP.5'
C0.75 →	C0.90	C1.34	C0.85	C0.51
12.07 0	11.92 10	11.47 20	11.97 20	12.31 37
				48.5 RP.5'
C0.89 →	C1.04	C1.49	C0.99	C0.65
12.22 0	12.07 10	11.62 20	12.12 20	12.46 37
				13.11 48.5 RP.5'
C1.27 →	C1.42	C1.87	C1.37	C1.03
12.37 0	12.22 10	11.77 20	12.27 20	12.61 37
				13.64 48.5 RP.5'
C1.09 →	C1.24	C1.69	C1.19	C0.85
12.52 0	12.37 10	11.92 20	12.42 20	12.76 37
				13.61 48.5 RP.5'
C1.36 →	C1.51	C1.96	C1.46	C1.12
12.67 0	12.52 10	12.07 20	12.57 20	12.91 37
				14.03 48.5 RP.5'

FINISH GRADES DEANZA RD. CONT'D.

Sta	H.I.	Elev.		
	1.6	EAST LT.		
	To Ground	\$ Ditch	E. Shldr	E. Pavt
B.C. Rt. Cb. R=30'				
14+80.64			62	
			76	
+50				
B.C. Lt. E. Shldr. R=60'				
+28.35				
B.C. Lt. E.P.R=100'				
14+02.24	12.11	10.31	11.01	11.36
	43.8	28	20	12
E.C. Rt.				
+76.17	12.58	10.38	11.09	11.44
	46.2	28	20	12
B.C. Rt. Cb. R=40'				
+41.53	12.57	10.47	11.20	11.55
	45.6	28	20	12
E.C. Rt.				
13+00.81	12.98	10.58	11.32	11.67
	47.4	28	20	12

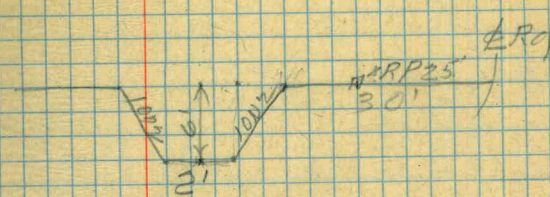
DATE	RT. WEST	Gut.	Cb.	PROP.	
	C0.27 →	C0.42	C0.87	C0.37	C0.03
	11.38	11.23	10.78	11.28	11.62
	0	10	20	20	37
					48.5
					RP 5'
	C0.32 →	C0.47	C0.92	C0.42	C0.08
	11.47	11.32	10.87	11.37	11.71
	0	10	20	20	37
					48.5
					RP 5'
	C0.46	C0.61	C1.06	C0.56	C0.22
	11.54	11.39	10.94	11.44	11.78
	0	10	20	20	37
					48.5
					RP 5'
	C0.72 →	C0.87	C1.32	C0.82	C0.48
	11.61	11.46	11.01	11.51	11.85
	0	10	20	20	37
					48.5
					RP 5'
	C0.63 →	C0.78	C1.23	C0.73	C0.39
	11.69	11.54	11.09	11.59	11.93
	0	10	20	20	37
					48.5
					RP 5'
	C0.64 →	C0.79	C1.24	C0.14	F0.36
	11.80	11.65	11.20	12.30	12.80
	0		20	40	40
				Gut	Cb
					48.5
					RP 5'
					Radial
	C0.69 →	C0.84	C1.29	C0.31	F0.19
	11.72	11.77	11.32	12.30	12.80
	0	10	20	40	40
				Gut	Cb
					48.5
					RP 5'
					Radial

PROPOSED DRAINAGE  
DITCH DEANZA POINT

W.O. 65033 4-10-53

Stampen  
Huffman  
Shorey  
Sherry

Sta	+	4.1	-	Elev	Grade	Cut
				13.79	8.49	5.3
				13.78	8.37	5.4
9+00				13.40	8.29	5.1
				13.00	8.14	4.9
8+00				12.93	8.04	4.9
				12.93	7.84	5.1
7+00				12.7	7.7	5.0
				12.7		3.0
6+00				13.1	8.1	5.0
				13.2	9.4	3.8
5+00				13.3	9.3	4.0
				13.6	9.2	4.4
4+00				13.1	9.00	4.1
				13.3	8.9	4.4
3+18.95				14.2	8.8	5.4
				14.1	8.7	5.4
EC+25.13				14.6	8.6	6.0
2+00				14.5	8.5	6.0
				14.6	8.3	6.1
1+00				14.1	8.2	5.9
0+50				13.5	8.1	5.4
				7.9	7.9	
B.M.				13.22	5.0	



EXISTING DITCH

4-17-53

DRAINAGE DITCH CONTD

Sta	+	H.I.	-	Elev Grade	Cut
-----	---	------	---	------------	-----

10+48.26				13.57	8.70	4.9
P.I.						
10+08.26				13.36	8.61	4.8



## FINISH GRADES DE ANZA

4-21-53

## ROAD CONTD.

STA	+	H.I.	-	Elev
		Rt.		

B.M.				13.585	13.535
------	--	--	--	--------	--------

	C0.03	C0.18	C0.40	C1.20	
--	-------	-------	-------	-------	--

10+58.56	12.80	12.65	12.43	11.63	12.83
	0	12	20	28	31.6

	F0.39	F0.39	F0.30	C0.50	
--	-------	-------	-------	-------	--

10+08.56	12.40	12.40	12.31	11.51	12.01
	0	12	20	28	29.5

TOP OF CURB GRADES DEANTA  
WEST SIDE OF SERVICE ROAD

STA	TOP CB GRADE	R.P. 5' GRADE ELEV	CUT
-----	--------------	--------------------	-----

SOUTH RETURN.

Rd Sta 13+00 Bl.				
EC. 0+41.89 =	60°00'	12.80	13.08	0.28 ✓
0+35	58°08'	12.50	12.80	0.30 ✓
0+28	40°06'25"	12.23	12.61	0.38 ✓
0+21	30°04'48"	12.08	12.38	0.30 ✓
0+14	20°08'12"	11.98	12.35	0.37 ✓
(see Pg. 37)				
0+07	10°01'36"	11.93	12.28	0.35 ✓
0+00 Cb. Ret. = R=40'				
12+66.17 B.C. Rt. =		11.92	12.28	0.36 ✓
+50		11.97	12.31	0.34 ✓
12+00		12.12	12.55	0.43 ✓
+50		12.27	12.71	0.44 ✓
11+00		12.42	12.91	0.49 ✓
10+50.17 Rd. Sta.				
0+36.36 EC. = 89°28'45"		12.57	13.04	0.47 ✓
0+28	68°23'15"	12.60	13.04	0.44 ✓
0+20	46°53'15"	12.68	13.38	0.70 ✓
(see Pg. 36)				
0+12	26°03'15"	12.79	13.61	0.82 ✓
S.W. Ret				
0+00	0°00'	12.82	14.06	1.24 ✓
B.M.				13.555

CURB GRADES DE ANZA RD. CONT'D.

Sta.	Grade	R.P. 5'	Cut.
	Top Cb	Elev.	
E.C.	91°55'26"	10.92	
P.O.C.	60°00'	10.88	
P.O.C.	30°00'	10.85	
⊗@CtY	(See Pg. 39)		
10'R"E"	0+00 = B.C.	10.82	
⊗@Center			
40'	Bal. of cb. stakes set 5' Bk. on this side		
P.R.C.	(See sketch Pg. 39)		
17+83.43	0°00'	11.22	12.375 0.155 ✓
+90	12°33'	11.24	11.74 0.50 ✓
+95	22°06'	11.26	11.22 F0.04 ✓
Rt. R=30'	36°10'26" (See Pg. 41)		
B.C. 14+80.64 = 18+02.37	11.28	11.17	F0.11 ✓
14+50		11.37	11.17 F0.20 ✓
14+28.35		11.44	11.38 F0.06 ✓
14+02.21		11.51	11.39 F0.12 ✓
13+76.17 = T.P.			
E.C. 0+41.89	60°00'	11.59	11.79 0.20 ✓
0+35	50°08'	11.65	11.91 0.26 ✓
0+28	40°06'25"	11.73	12.06 0.33 ✓
0+21	30°04'48"	11.88	12.20 0.32 ✓
0+14	20°03'12"	12.10	12.34 0.24 ✓
0+07	10°01'36"	12.40	12.46 0.06 ✓
B.C. R=40'	⊗@		
13+41.53	Center	12.80	12.67 F0.13 ✓

SUBGRADES DEANZA ROAD

Sta.

Elev.

13+41.53

E.C. RT.

13+00.81

B.C. RT.

12+66.17

12+50

12+00

11+50

11+00

E.C. LT.

10+50.94

B.M.

12.39

7-7-53

Lt.

+

Rt.

10.70 ✓

11.18 ✓

Stamper

Sisson

Palmer

Sherry

10.82 ✓  
20

11.30 ✓  
0

10.92 ✓

11.40 ✓  
0

10.97 ✓  
20

11.45 ✓  
0

11.12 ✓  
20

11.60 ✓  
0

11.27 ✓  
20

11.75 ✓  
0

11.42 ✓  
20

11.90 ✓  
0

11.57 ✓  
20

12.05 ✓  
0

Chas. W. Parsh To Deanza Pump House  
(see pg 41)

SUBGRADES DE ANZA RD. CONTD.

Sta.

Lt.                      €                      Rt.

B.C. RT.  
14+80.64

10.76 ✓  
0

14+50

10.07 ✓  
Varies

10.85 ✓  
0

B.C. LT.  
14+28.35

10.28 ✓  
20

10.92 ✓  
0

B.C. E.P.L.T.  
14+02.24

10.51 ✓  
20

10.99 ✓  
0

13+76.17

10.59 ✓  
20

11.07 ✓  
0

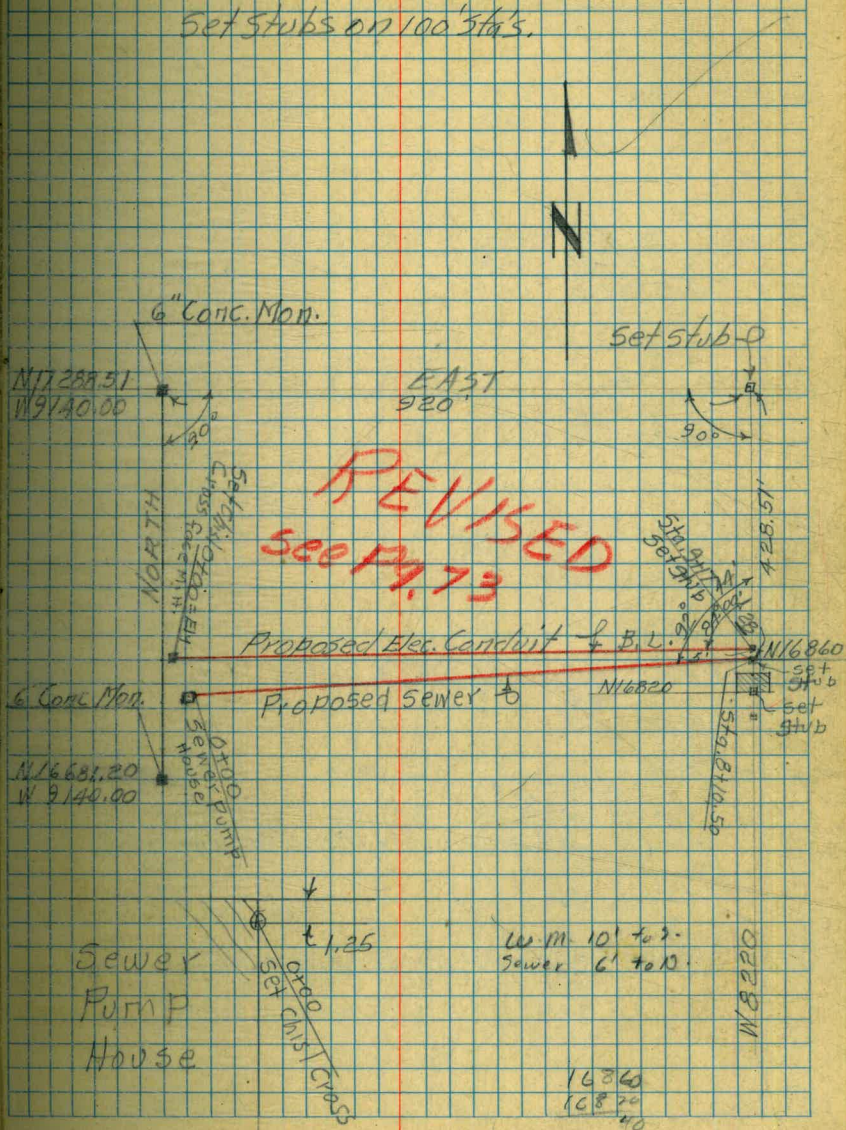
SURVEY FOR PROPOSED COMFORT STA  
 DE ANZA POINT; PROFILES & LOCATION  
 OF PROPOSED ELECTRIC & SEWER LINES  
 W.O. 64032

INDEXED  
 MAR 7 1955

NOTE: For location of  
 Monuments (see p. 26)

T.A. Stamper

Set stubs on 100' sta's.



CROSS SECTIONS FOR PROPOSED  
SANITARY SEWER DE ANZA POINT. W064032

3+00

2+50

2+00

1+50

1+00

Line Bears 54° E  
0+32<sup>2</sup> Line Crosses 18" RCP. Drain  
(See Improvement Plans De Anza Pt.)

0+00 = face of Pump House (see Sketch)

B.M.

12.39

-Used  
Direct Elev Rod - 3-04-55  
Datum = U.S.C. & G.S. M.L.L.W.

Stampel  
Huffman  
Emery  
Blunt  
RT.

Lt

£

109	10.4	101	9.8
50	0	50	83
			Top bank

110	10.6	103	9.7
50	0	50	87
			Top bank

10.7	10.8	10.4	9.8
50	0	50	92
			Top bank

10.9	10.6	96	10.0
50	0	50	95
			Top bank

110	10.5	100	9.8
50	0	50	98
			Top bank

7.40	10.90	10.89	10.6	5.00
20 <sup>7</sup>	20 <sup>7</sup>	16 <sup>4</sup>	0	127 <sup>3</sup>
Elev. NW surface				outlet
18" RCP Top C.O.				18" RCP
C.O. Top				

1021	1076	10.5	10.0	9.3
335	33	0	50	100
Gulch Top B.M.			Top	bank
berm				

(See Pg. 41)

SANITARY SEWER

6+50

11.1 10.6 10.2 10.1  
50 0 50 69  
Top bank

6+00

10.9 10.6 10.4 10.2  
50 0 50 72  
Top bank

5+50

10.8 10.5 10.6 10.3  
50 0 50 73  
Top bank

5+00

10.7 10.4 10.5 10.2  
50 0 50 75  
Top bank ±

4+50

10.7 10.5 10.2 9.9  
50 0 50 75  
Top bank ±

4+00

10.6 10.4 10.0 9.9  
50 0 50 78  
Top bank ±

3+50

10.6 10.4 10.0 9.8  
50 0 50 80  
Top bank ±

ft

ft

ft

(66)



SANITARY SEWER

8+10<sup>50</sup> = End of Line

8+00

7+50

7+00

Lt. E Rt.

(67)

10.72	10.2	10.0
0	50	64
0175 tub		

11.0	10.5	10.2	10.0
50	0	50	64

10.9	10.6	10.0	9.9
50	0	50	69
Top bank			

11.1	10.4	10.2	10.1
50	0	50	69
Top bank			

PROFILE FOR PROPOSED ELEC  
CONDUIT LINE DEANZA POINT  
NO 64032

E

0+76 = Top A.C. berm

11.40

0+74<sup>1</sup> Gutter Toe A.C. berm

10.78

0+50 A.C. Pavt.

11.28

0+12<sup>2</sup> Gutter A.C. Pavt.

10.78

0+12<sup>2</sup> Top Curb

11.25

0+00

11.7  
Ground

0+00 = Ely face Existing M.H. (see Sketch)

11.11      3.33  
0  
Top Box      F.L.  
Ely face

B.M

1239

ELEC CONDUIT

TP  
4+00

11.06

11.06  
on stub

3+50

11.0

3+00

11.1

2+50

11.2

2+00

11.2

1+50

11.5

1+25 Top

11.8

1+00 ± Bottom Drainage Ditch

10.3

Check Plans for Sewer X-1519  
RUMS N. & S.

±

(69)

ELEC CONDUIT

8+00

7+50

7+00

6+50

6+00

5+50

5+00

4+50

€

(20)

10.7  
0

10.7  
0

10.8  
0

10.8  
0

10.7  
0

10.7  
0

10.8  
0

10.7  
0

ELEC. CONDUIT.

£

B.M.

12.38-1239

Starting bench (see Pg 65)

T.P.

11.06

9+17<sup>28</sup> End of Line

10.67

on 3/4" b

9+00

10.6

8+50

10.6

NOTE: See Sketch pg. 64

3-04-55

ELEVATIONS OF GROUND @  
SITE FOR PROPOSED COMFORT  
STA. W.O. 64032

N.W. COR.

10.3

ON GROUND

N.E. COR.

10.7

ON GROUND

S.E. COR.

10.5

ON GROUND

S.W. COR.

10.1

ON GROUND

B.M.

10.67

Top 5'ub Sta. 9+17.28 Elec. Cont. Bk.

NEW LOCATION OF COMFORT STA  
DE ANZA POINT. W.O. 640.32

6" Conc. Mon.  
N 17288.51  
W 9140.00

EAST  
670'

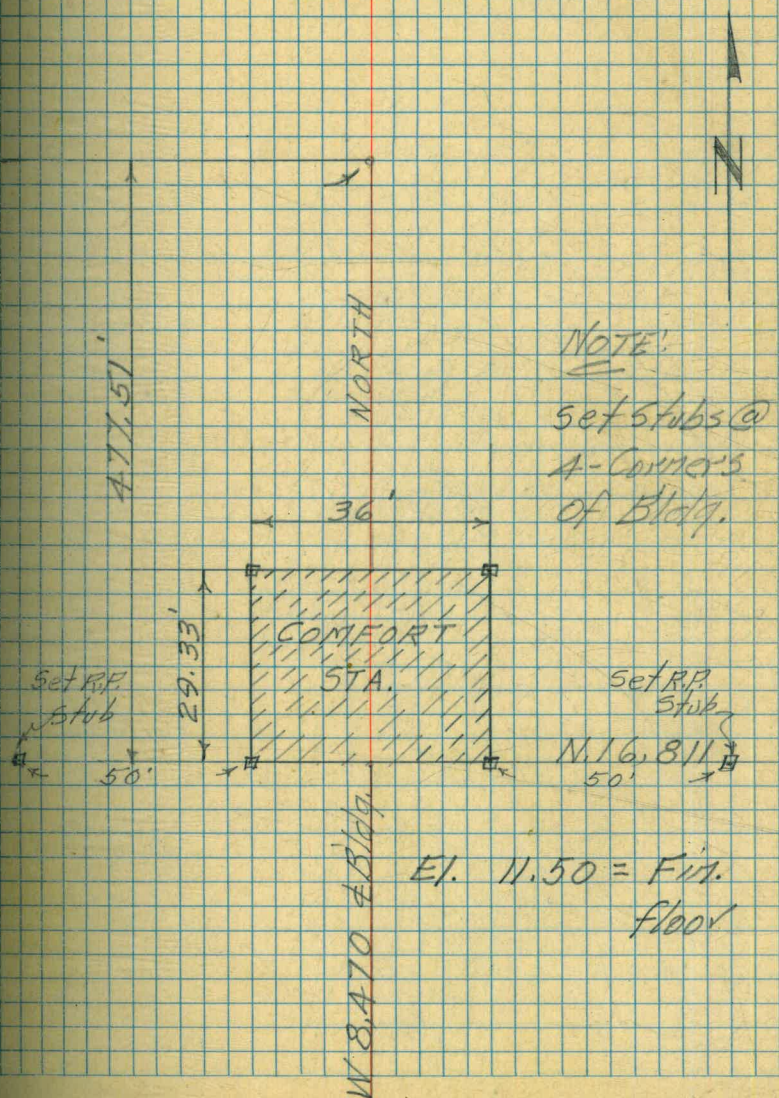
NORTH

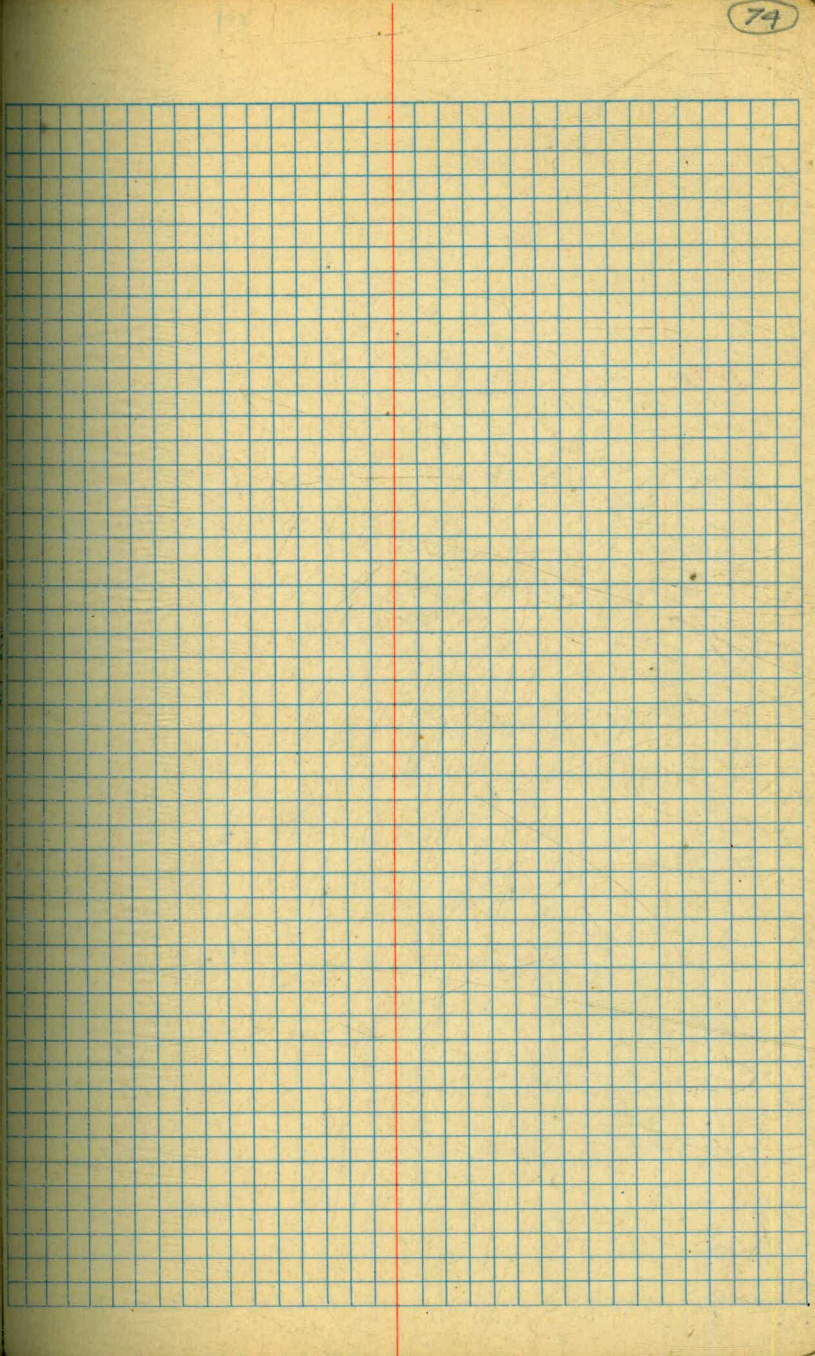
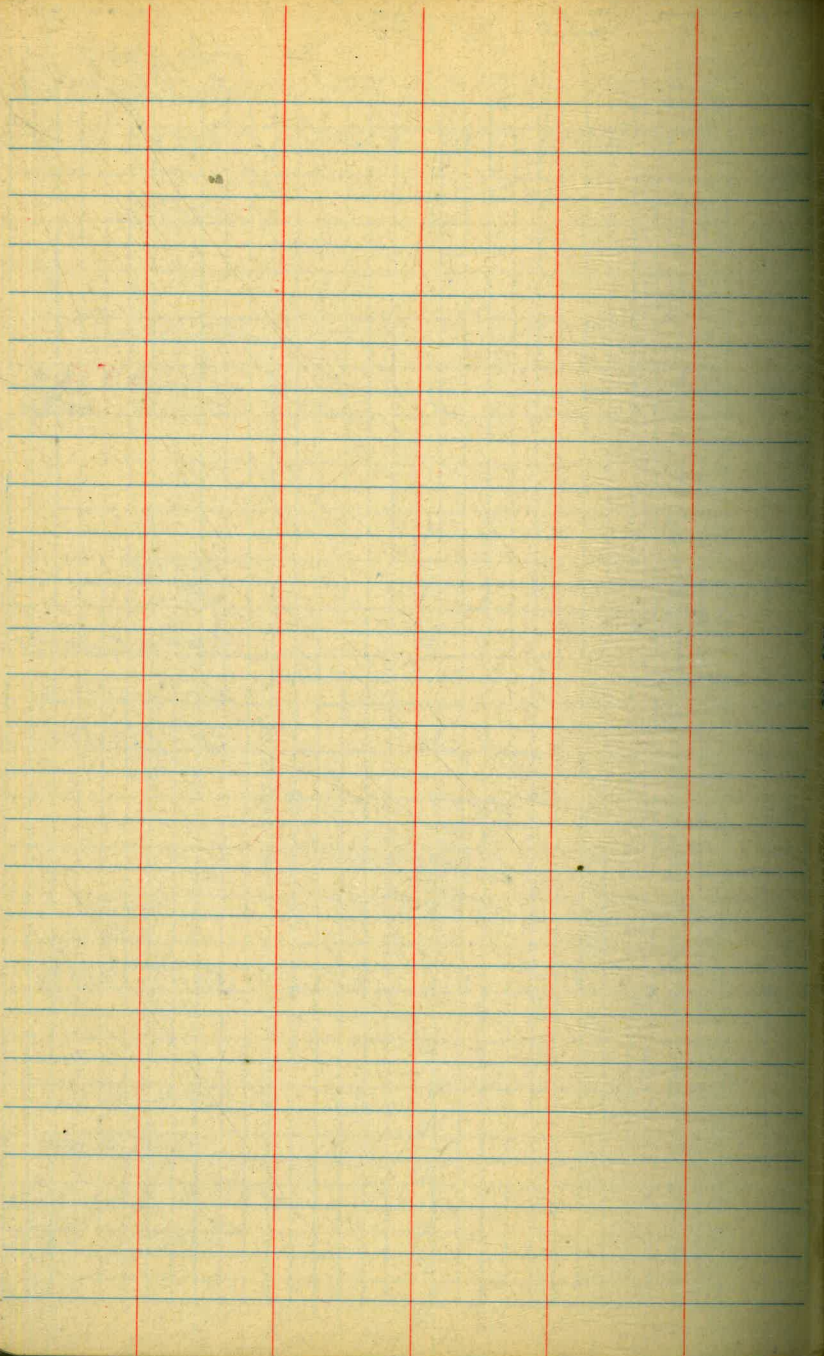
6" Conc. Mon.  
N 16681.20  
W 9140.00

4-28-55

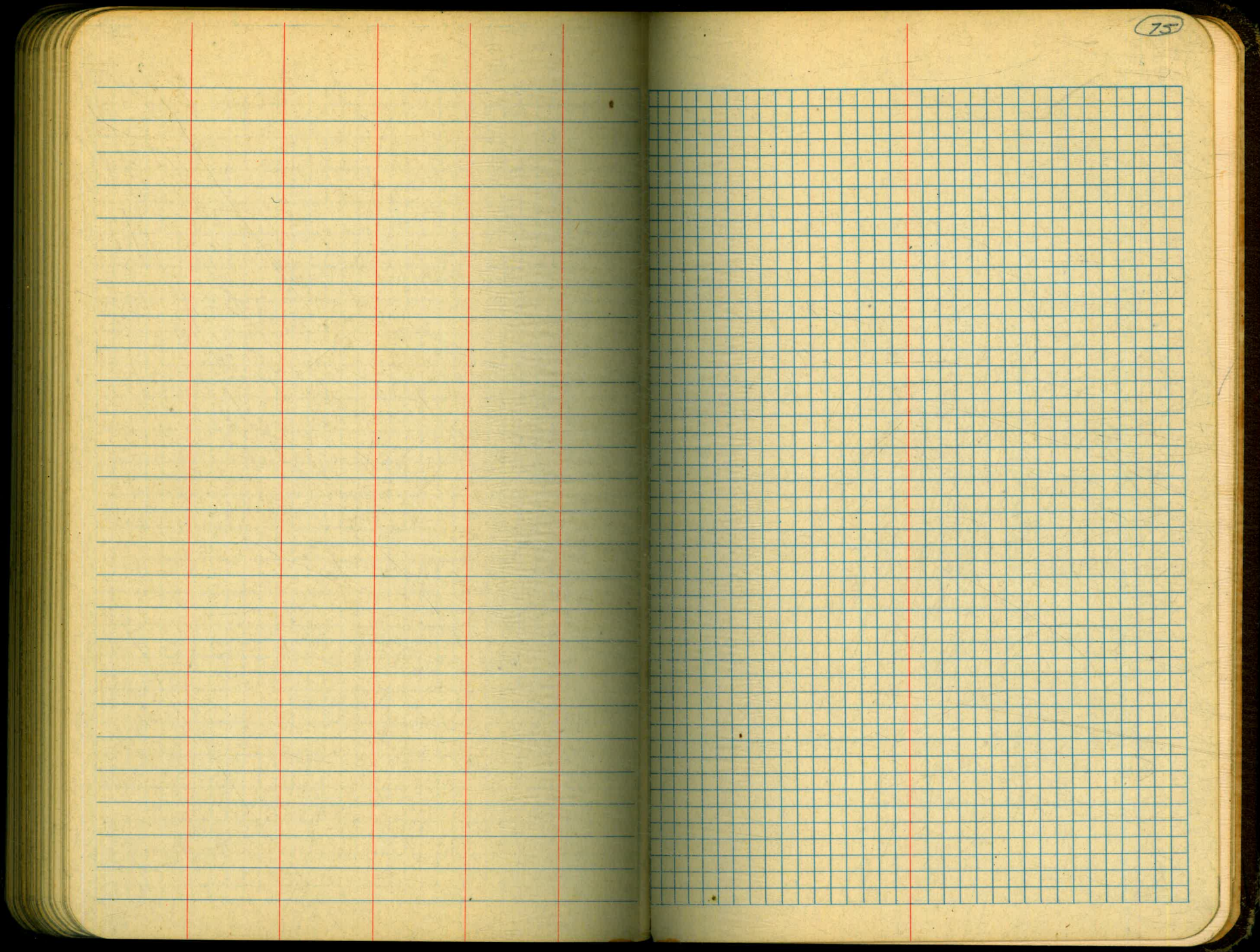
(73)

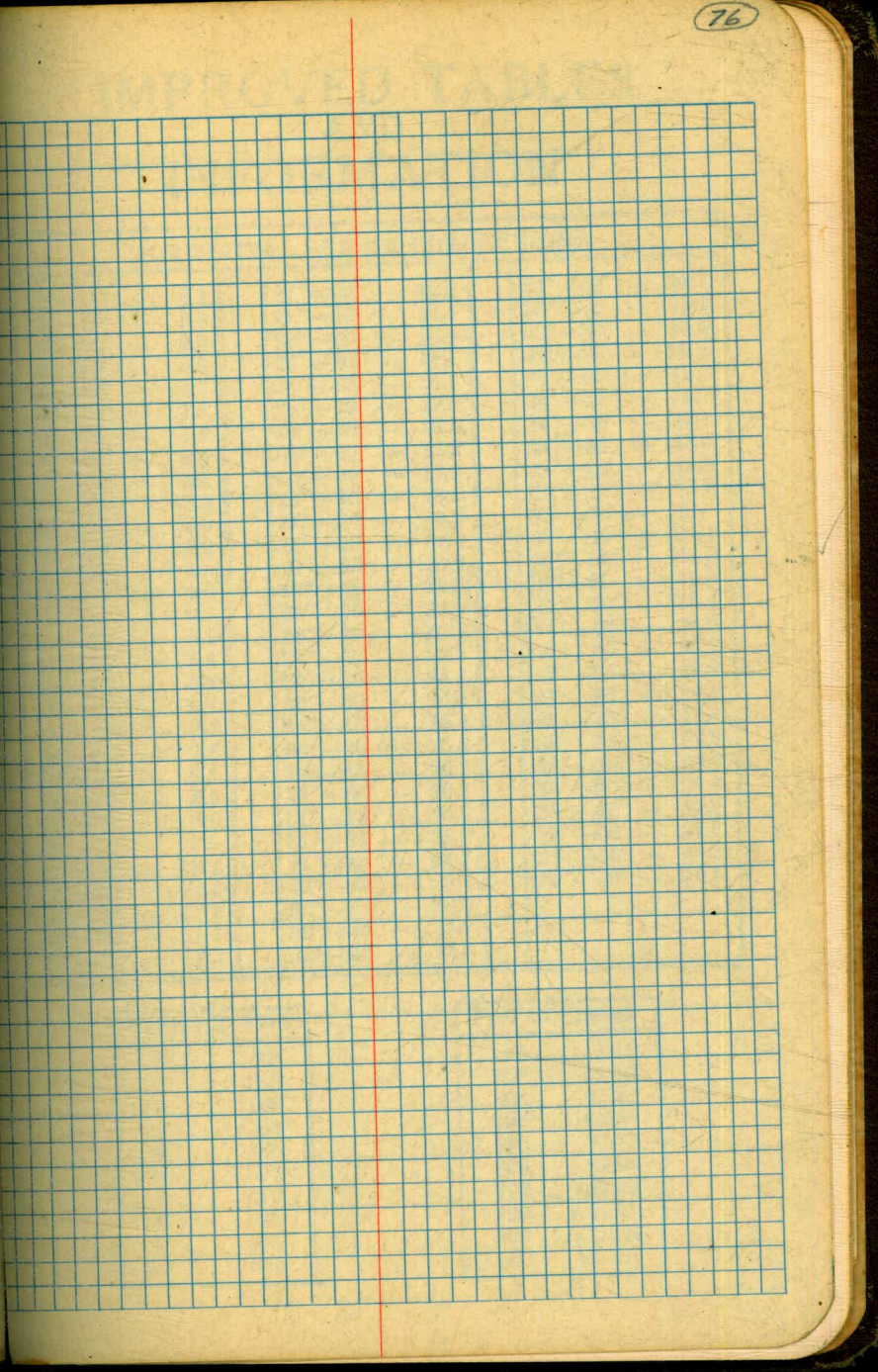
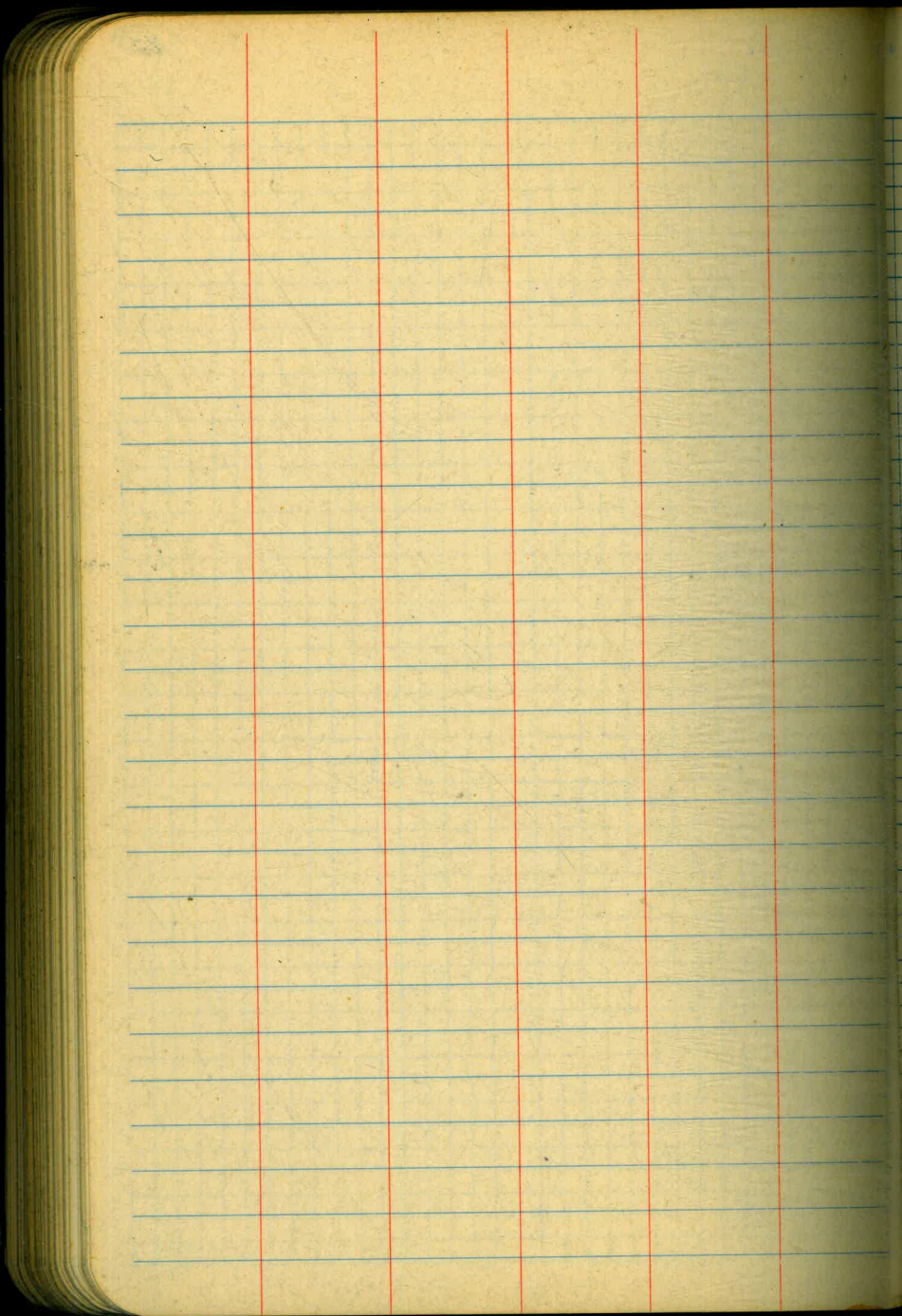
Stampel  
Huffman  
Rover  
Blunt  
Elmore











7, 75

# DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 1/2 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 No. 9.

To find Tangent and External for curve of any other degree, divide by degree of curve and add correction found in column of corrections.

Degree of curve with a given I may be found by dividing tangent, (or external), opposite I by given tangent, (or external).

The distance from a point on the tangent to the curve is very nearly the square of the tangent length divided by twice the radius.

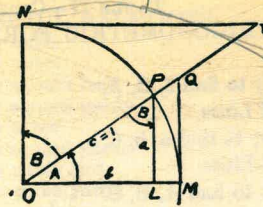
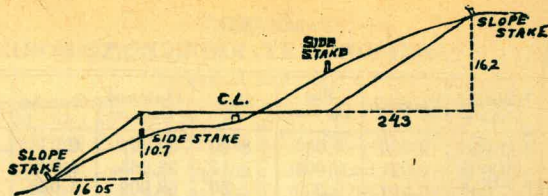


TABLE II  
TRIGONOMETRIC FORMULÆ.

$$\begin{aligned} \angle A &= \angle MOP & \angle B &= \angle PON = \angle OPL \\ R &= OB = c = 1 \\ \sin A &= \frac{a}{c} = \frac{a}{1} = a = \cos B = LP \\ \cos A &= \frac{b}{c} = \frac{b}{1} = b = \sin B = OL \\ \tan A &= \frac{a}{b} = \frac{MQ}{OM} = \frac{MQ}{1} = MQ = \cot B = MQ \\ \cot A &= \frac{NT}{ON} = \frac{NT}{1} = NT = \tan B = NT \\ \sec A &= \frac{OQ}{OM} = \frac{OQ}{1} = OQ = \csc B = OQ \\ \csc A &= \frac{OT}{ON} = \frac{OT}{1} = OT = \sec B = OT \\ \text{vers } A &= \frac{LM}{OP} = LM = \text{covers } B \# \\ \text{covers } A &= \frac{OP - LP}{OP} = OP - LP = \text{vers } B \\ \text{exsec } A &= PQ = \text{coexsec } B \\ \text{coexsec } A &= PT = \text{exsec } B \\ \sin \frac{1}{2} A &= \sqrt{\frac{1 - \cos A}{2}} & \cos \frac{1}{2} A &= \sqrt{\frac{1 + \cos A}{2}} \\ \sin 2A &= 2 \sin A \cos A & \cos 2A &= \cos^2 A - \sin^2 A \\ \text{Law of Lines} & \frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c} \\ \text{Law of Cosines} & c^2 = a^2 + b^2 - 2ab \cos C \\ \text{Law of Tangents} & \frac{a+b}{a-b} = \frac{\tan \frac{1}{2}(A+B)}{\tan \frac{1}{2}(A-B)} \end{aligned}$$



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE  $\frac{3}{4}$  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

Computed by L. Leland Locke.

SLOPES 3: 1

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	0.00	.3	.6	.9	1.2	1.5	1.8	2.1	2.4	2.7
1	3.0	3.3	3.6	3.9	4.2	4.5	4.8	5.1	5.4	5.7
2	6.0	6.3	6.6	6.9	7.2	7.5	7.8	8.1	8.4	8.7
3	9.0	9.3	9.6	9.9	10.2	10.5	10.8	11.1	11.4	11.7
4	12.0	12.3	12.6	12.9	13.2	13.5	13.8	14.1	14.4	14.7
5	15.0	15.3	15.6	15.9	16.2	16.5	16.8	17.1	17.4	17.7

SLOPES 6: 1

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	0.0	.6	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4
1	6.0	6.6	7.2	7.8	8.4	9.0	9.6	10.2	10.8	11.4
2	12.0	12.6	13.2	13.8	14.4	15.0	15.6	16.2	16.8	17.4
3	18.0	18.6	19.2	19.8	20.4	21.0	21.6	22.2	22.8	23.4
4	24.0	24.6	25.2	25.8	26.4	27.0	27.6	28.2	28.8	29.4
5	30.0	30.6	31.2	31.8	32.4	33.0	33.6	34.2	34.8	35.4

15 11.65

.3

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11.98

12.0

2.

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10.0

11.98

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2.15

3.33

