1993

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DRAWING MATERIALS, MATHEMATICAL and SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

Distances from Center of Roadway for Cross-Sectioning
Roadway 16 feet wide. Side Slopes 1 on 1.
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be 30.6+(20—16)÷2 or 2 ft. added to 30.6 =32.6. For slopes of 1 on 1½ see inside of back cover.

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1993

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Made in U. S. A.

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1/29/46 Newcomb Dam 2 Men Brooks Col.

Mission Valley Soil Borings.

Velarde Newton

40+50 E of A.T. + S.F. R.R.

-7.0 grade
0-5' Dry Sand.
5-6 Moist "
6-8 Wet " very Slight Clay Content
Water Shows in Hole 8.0'

46+00 100' S of Dyke. N of C. Del Rio.

-7.5 gr.
0-4 Dry Sand.
4-5 Damp Sand.
5-6½ Wet Sand. Caves in Hole at bottom
water raised to 5' below Surface in 30 Min.

54+00 Near Toe of Dyke + N of C. Del Rio.

-9.5 gr.
0-1 Sandy loam Dry.
1-3 Dry Sand. + Gravel.
3-7 " "
7-8 Wet Sand.
8-9 Very Wet Sand.

58+00 E of Morena Blvd Bridge

-10.5 gr.
0-5 Dry Black Sandy Loam.
5-8 Damp Loam - Clay Content.
Something in Bottom of hole.
Wet Sand at Bottom indicated

61+00
0-2 Damp Sand.
2-3 Wet " + Rock in way.
15' N 2' lower ground
2' wet Sand Caves in

INDEXED
W.K.
SEP 10 1948

1

65+00 10' N. + 2' Lower.

-4 gr.
0-1 Damp Sand.
1-3 Wet "
3-3.5 Very Wet " Caves in.

69+60 20' N + 2' Lower.

6.5 gr.
0-1 Damp Sand.
1-4 Wet "
4-5 Very " "

78+00 5 N in Ditch + 2' Lower

-8.0 gr.
0-5 Dry Sand.
5-7 Wet "

P.M.
85+00. 150' W. of Store N of C. Del Rio Sta

-9. grade
0-5 Sandy - Some loam Dry
5-7 Wet Sand.
7-9 Wet " water.

93+00 100' W. of Benard House.

-9. gr.
0-3.5 Loam - Brown - Dry.
3.5-6 Sandy (Loam) "
6-9 " ") Damp. to Wet
9-10 " Wet.

98+03. E of Benards 0-2 Black Sandy Loam
2-5 Damp Sand.
5-7 Wet "

106+00 N of Hill at Foot Allen Prop.
0-3 Dark Brown Soil (Sand)
3-4 " " " (Clay) Damp
4-7 " " " " "
Some water in bottom.

112+43 8' N. 3' Lower. N. of Rio
-5' Grade
0-1 Top Soil Mucky Bl. Soil.
1-2 Coarse Sand. Damp.
2-5 Black Clayey (Loam) " Sticky
5-7 " " - Sand " Mica) To Wet
Water Comes in at about 6' Wet Sticky

20+13 S. of Camino Del Rio. S of Valve Chamber.
0-3 Brown Rocky Soil.
Move S. 25' 3' Lower.
-5½ grade
3-0 - 0-3 Brown Loamy Soil Damp
3-6.5 Black Stick Clay "
water at Bottom.

1/31/46 Newcomb Out with Darby
Velaide
Brooks.

28+60 S. of Camino Del Rio W of 6th St. at 42" R.C.P Culvert
-6.5 Grade
0-1.5 filled Rock & Brown Sandy Loam
1.5-4.0 Sand Loam Damp. River Silt
4.0 5.5 Black Loam & Clay. Damp.
5.5-7.5 Sand & Loam Wet Brown
Water Comes in bottom

37+00 S. of Camino Del Rio W. of Anthony Ho.
-7 Grade
0-1 Top Soil Sand Rock. Damp.
1-4 Dark - Damp - Sandy Loam. (Clay)
4-5 Lighter Brown Damp " "
5-7.5 " " Wet-Sand.
Water Comes in near bottom.

46+00 S of Camino Del Rio 200' W of Anthony Ho.
6' S in Ditch. 1.5' Lower
-6 gr
0-4 Dark Sandy Loam (Clay) Damp
River Silt - Mica trace
4-6 " " " " Wet
6-7.5 " " " " Wet
Water in at Bottom.

53+00 6' R. E of Anthony Home. .5 Lower
-6 gr
0-4 Dark Sandy Loam - River Silt Damp
4-7 " " " Mica trace " " Wet
7-8.5 " " " " " Wet +
Some water at bottom.

W. of 6th St Ext. 50' W. of Ex Road
N.W of Challenge Dairy.
0-4 Black Soil Very hard
Abandoned.

W. of 6th St in bottom of Drain Ditch
200' N.W. of Ch. Dairy.
Bottom Ditch 4' below 6th St Grade = O. El.
0-6 Black Soil - Some Sand (Clay) Damp.
6 Loose Rock in bottom of 6' hole.
Abandon'

300' S. of Branch Road N. of Camino Del Rio E of 6th St Ext.
20' N.E of Ir. Valve.
S.E Corner of Plowed Tract in field

0-4 Brown Mica Sand Silt Soil. Damp-hard
4-6 Black " (") " " " "
6-7.5 Coarse Sand. Wet
Caves in Hole at bottom.

76+00 E of 6th Ave Ext on S. Side C. Del Rio.
15' of S. End of 24" C.P.C. F.L. = ground.
0-2 Brown Mica Sand. Silt Soil Damp hard
2-5 Darker " " " " " "
5-6 Coarse Sand. " " " Loose
6-8.5 " " " " Wet.
Water Seaps in at bottom -

85+50 S of C. Del Rio
0-1½ Brown Mica Sand Silt Soil Damp hard
1½-2½ Coarse Sand Light
2½-5 Dark Silt Soil {Sand Mica} Damp
5-6½ " " " "
6-7 Coarse Sand. Wet.
Water at bottom & Caves in hole
Grench should stand & Bottom OK

95+50 S of C. Del Rio.
0-6 Dark Brown Soil. Damp Mica Sand Content
6-7 " " Coarse Sand Wet

103+00 S. of C. Del Rio
0-5 Dark Brown Soil. Damp Mica Sand Content
5-6½ " " " Damper " " "

115+00 12' S of S. Shoulder of Road
3' Lower than Road.
OK. no Base Required
0-6 Dark Brown Soil - Silt, Sand Mica } Dry. Content
6-7.5 Lt. Brown Sand. Sand. Dry. Gets Damp
7.5

1/31/46 Newcomb out with Darby Velarde Brooks
124+60 S.E. of Road.
0-7 Dark brown Soil - Damp. Silt Sand Mica
7-8 Light " Sand. "
8-8.5 Black Clayey Soil. " } No water Shows.

133+30 at 18" Culv. 25' S.E of Road. Low Stripped Area.
0-2 Dark Brown Soil Sand Silt Mica
2-4½ " " Sticky Clayey Soil.
4½ 5½ " " Sandy Soil. Wet

143+10 E of Sand Rock Grade & S of C. Del Rio
0-2 Rocky Sandy Dry. Fill.
2-4 Dark brown Damp Sandy } Soil. Rock
Abandon hole at Rock.

145+00 S. of Camino Del Rio. E. of S Rock Grade
0-2 Dark Brown Rocky Soil Damp
2-5 Light " Sandy " " Some Rock
5-6 Dark " " " "
6-7 " " " " Wet.
7-8½ Adobe Clay Damp
N. of Camino Del Rio.
155± 0-3½ Lt Brown Sandy Loam very hard & Dry. Damp
at Bottom & Abandon hole.

256+25 N of Camino Del Rio E of Cypress Tree on E side of Lane to Woodwards Sand Pl.

0-4.0 Dark brown Soil-Damp-Sand Content

4-6.0 " " " " Clay Rocks

6-7.5 " " Clay-Adobe-Damp. Very hard. Abandon hole

No water No Base Required.

266± E of City Pump Plant on low Level of Reichert's field below Shed.

0-4 Dark Brown Sandy Loam-Damp. Hard. Very Hard to Ex as Rocks Some Rock

block hole. Abandon.

269+15 8' N. E. edge in Rye Field. 2' Lower than △

0-5.5 Black loam Very little Sand or Silt Damp. - Some Clay.

273+30 8' W in field. 60'± N.W. of Well.

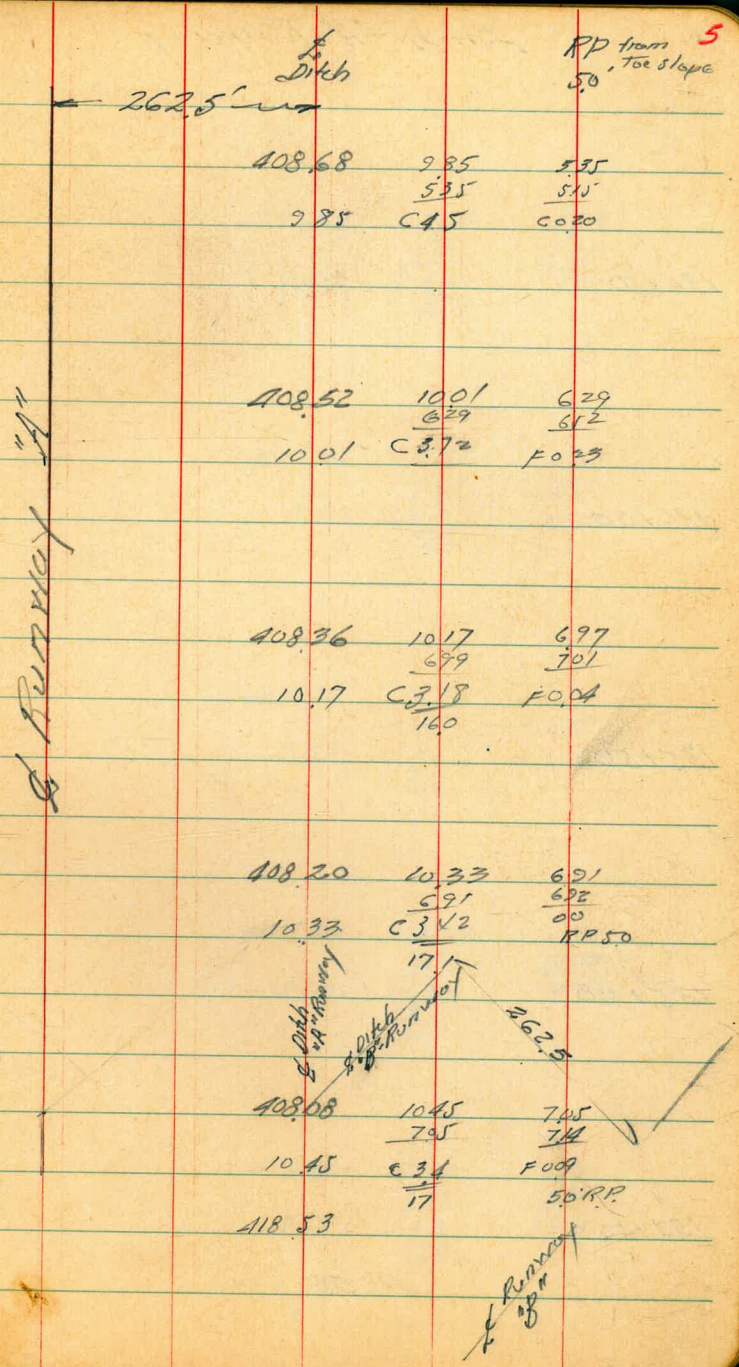
0-6 Sandy Loam Dry-Rather Sandy.

Walker
Johnson
Brandy
Pilot
10-22-48

~ Gibbs Airport ~ Runway "A"

Slope stakes - Ditch on Rt
from 132+12.93 to End.

134+00				
133+50				
133+00				
132+50				
132+12.93				
BM on stake 250 Rt 133+00	702	41853	6.78	411.75
				411.51



Ditch - "A" Runway

Station		℄ Ditch		5' R.P.
		409.48	9.05	4.85
			4.85	4.85
136+50		9.05	C 4.2	0.00
			21.0	
		409.32	9.21	5.61
			5.61	5.61
136+00		9.21	C 3.6	0.00
			18.0	
		409.16	9.37	6.37
			6.37	6.39
135+50		9.37	C 3.0	F 0.02
			15.0	
		409.00	9.53	6.53
			6.53	6.53
135+00		9.53	C 3.0	0.00
			15.0	
		408.84	9.69	6.39
			6.39	6.43
134+50		9.69	C 3.3	F 0.04
	418.53	418.53	16.5	

Ditch "A" Runway
Slope Stakes on Rt

139+00					
138+50					
138+00					
137+50					
on 137+00 250' Rt					
T.P.	10.32	424.80	4.05	414.50 / 414.48	181860
137+00					
		418.53			

	℄ Ditch		5.0' R.P.
410.28	14.52	4.22	
		4.22	3.97
14.52	C10.3		C0.25
410.12	14.68	4.68	
		4.48	4.68
14.68	C100 / 50		000
409.96	14.84	6.34	
		6.24	6.10
14.84	C85		C0.24
	42.5		
409.80	15.00	8.98	
		8.4	8.10
15.00	C66		C0.28
	33		
424.80 / 7			
409.64	8.89	3.29	
		3.29	3.52
8.89	C56		F0.22
	28		
418.53 / 7			

Slope Stakes - Ditch on Rt of Runway "A"

0.04

Chk 141+00 250' Rt — 556 — 419.28 / 419.24 — FB 1860 / 33

Station	Remarks	℄ Ditch		5' R.P.
141+67.9	Flow Line = 1.0' Below Shoulder.	412.64 12.16	12.16 8.16 C 4.0	8.16 8.49 F 0.33
141+00	= Break in Ditch.	410.92 13.88	13.88 5.38 C 8.5 42.5	5.38 5.60 F 0.22
140+50		410.76 14.04	14.04 4.24 C 9.8 49	4.24 4.14 C 0.10
140+00		410.60 14.20	14.20 4.00 C 10.2 51	4.00 3.80 C 0.20
139+50		410.44 14.36	14.36 4.16 C 10.2 51	4.16 3.86 C 0.30
	424.80	424.80		

Walker
Johnson
Allen
Brandy
10-24-48

~ Runway "A" ~

Slope Stakes on Left, for Ditch from 127+72.41

129+50

129+00

128+50

128+00 Brk.

127+72.41

Chk 128+00 250' Lt 6.27 408.34

5.00 414.61 409.61

9

5' Lt R.P.		℄ Ditch.
5.27	7.37	407.24
5.21	5.27	
C 0.06	C 2.1	7.37
	10.5	
5.43	7.53	407.08
5.48	5.43	
F 0.05	C 2.1	7.53
	10.5	
5.89	7.69	406.92
5.85	5.89	
C 0.04	C 1.8	7.69
	9.0	
6.25	7.85	406.76
6.18	6.25	
C 0.07	C 1.6	7.85
	8.0	
6.64	8.94	405.67
6.57	6.64	
C 0.07	C 2.3	8.94
	11.5	414.61

B.M. = Stake 250' Lt 130+00 FB 18 60/29

"A" Runway
Slope Stakes - Ditch on Lt
Slope = 5:1

	5 Lt. RP		℄ Ditch.
132+00	2.57 2.50 C 0.07	6.57 2.57 C 4.0 20	408.04 6.57
131+50	2.83 2.77 C 0.06	6.73 2.83 C 3.9 19.5	407.88 6.73
131+00	2.89 2.80 C 0.09	6.89 2.89 C 4.0 20.0	407.72 6.89
130+50	4.45 4.43 C 0.02	7.05 4.45 C 2.6 13.0	407.56 7.05
130+00	5.01 5.01 0.00	7.21 5.01 C 2.2 11.5	407.40 7.21 414.61

"A" Runway - Slope Stakes

Ditch on Lt.

134+50				
134+00				
T.P.	5.33	417.19	2.75	411.86
133+50				
133+00				
132+50				
		414.61		

5' Lt. R.P.		℄ Ditch
5.55 5.52 C 0.03	8.35 5.55 C 2.8 14.0	408.84 8.35
5.51 5.51 C 0.00	8.51 5.51 C 3.0 15.0	408.68 8.51 417.19
2.59 2.43 C 0.16	6.09 2.59 C 3.5 18.0	408.52 6.09
2.55 2.52 C 0.03	6.25 2.55 C 3.7 18.5	408.36 6.25
2.41 2.30 C 0.11	6.41 2.41 C 4.0 20	408.20 6.41 414.61

"A" Runway

Slope Stakes - Ditch on Lt

	5' Lt RP		℄ Ditch
137+00	5.05 4.94 C 0.11	7.55 5.05 C 2.5	409.64 7.55
136+50	5.71 5.64 C 0.07	7.71 5.71 C 2.0 10	409.48 7.71
136+00	5.27 5.22 C 0.05	7.87 5.27 C 2.6 13	409.32 7.87
135+50	5.63 5.63 0.00	8.03 5.63 C 2.4 12.0	409.16 8.03
135+00	5.69 5.63 C 0.06	8.19 5.69 C 2.5 12.5	409.00 8.19 417.19

"A" Runway

Slope Stakes - Ditch on Lt.

						5' Lt. R.P.		℄ Ditch.
139+50						8.52 8.65 F0.13	15.42 8.52 C6.9	410.44 15.42
139+00						9.68 9.31 C0.37	15.58 9.68 5.9 29.5	410.28 15.58 425.86
T.P.	8.76	425.86	0.09	417.14 417.10	139+00 [illegible] Lt 1860-32			
138+50						2.77 2.88 F0.11	7.07 2.77 C4.3 21.6	410.12 7.07
138+00						4.13 4.07 C0.06	7.23 4.13 C3.1 15.5	409.96 7.23
137+50						4.89 4.92 F0.03	7.39 4.89 C2.5 12.5	409.80 7.39 417.19
		417.19						

"A" Runway
Slope stakes - Ditch on Rt

	5' Rt. R.P.		℄ Ditch
142+00	4.22 4.18 C 0.04'	14.62 4.22 C 10.4 52	411.24 14.62
141+50	4.78 4.73 C 0.05'	14.78 4.78 C 10.0 50	411.08 14.78
141+00	5.14 5.22 F 0.08'	14.94 5.14 C 9.8 49	410.92 14.94
140+50	6.10 5.86 C 0.24	15.10 6.10 C 9.0 45.0	410.76 15.10
140+00	6.56 7.06 F 0.50	15.26 6.56 C 8.7 43.5	410.60 15.26 425.86

"A" Runway
Slope Stakes - Ditch on Lt.

		5' Lt. RP		℄ Ditch.
144+50		8.62 8.57 C 0.05	13.82 8.62 5.2	412.04 13.82
144+00		7.98 7.98 0.00	13.98 7.98 C 6.0 30	411.88 13.98
143+50		7.74 7.71 C 0.03	14.14 7.74 C 6.4 32	411.72 14.14
143+00		6.70 6.65 C 0.05	14.30 6.70 C 7.6 38	411.56 14.30
142+50		5.86 5.86 0.00	14.46 5.86 C 8.6 43.0	411.40 14.46
	425.86			425.86

"A" Runway

Slope Stakes - Ditch on Lt.

						5 Lt. RP.		℄ Ditch		
				004						
				416.63	FB 1860 34					
Check	145+00	250' Lt	9.27	416.59						
				0.10 Diff.						
(Long shot)				415.33	FB 1860-2					
Check Mon	146+00		10.63	415.23						
145+00						9.16	13.66	412.20		
						9.06	9.16			
		42.586				C 0.10	C 4.5	13.66		
							22.5	42.586		

TAXIWAY - "F" Rough Grades

Re stake portion

1+23.69 = B.C. 100' ℄ R

0+75

P.O.C = 60° from P.C. on 48.69 R

P.O.C = 30° from P.C. on 48.69 R

P.C. 48.69' R. on Rt

5.65 420.98 / 5 415.33

Lt		℄	Rt	
50	25		25	50

F 1.68'

415.45 415.70

413.77

7.21

F 1.07'

415.45

414.38

6.60

416.13 416.05 415.97

F 0.76

415.70

415.04

5.94

F 0.23

415.82

415.59

5.39

C 0.36

415.81

416.17

4.81

B.M. Conc. Mon 46+00 "A" Runway

FB 1860 / 2

Taxiway "F" - Rough Grades

Restake Portion

	Lt 50	Lt 25	℄	Rt 25	Rt 50
3+25				F 2.16	
	416.09	416.34	416.59	416.34	
				414.18	
				6.80	
2+75				F 1.38	
	415.58	415.83	416.08	415.83	
				414.45	
				6.53	
2+25				F 1.73	
	415.19	415.44	415.69	415.44	
				413.71	
				7.27	
2+10.96 = E.C.		F 0.55		F 1.62	
		415.40	415.65	415.40	
		414.85		413.78	
		6.13		7.20	
1+75		F 0.49		F 1.24	
		415.31	415.56	415.31	
		414.82		414.07	
		6.16		6.91	

42.098
5

Taxiway "F" ~ Rough Grades

					Lt		℄		Rt	
						25		25	50	
	FB 1860-37		0.03							
			417.45							
Chk 4+25	50' Rt	3.56	417.42							
									F 1.19	
						417.11		416.86	416.00	
3+75									414.81	
									6.19	
									F 0.85	
						416.85		416.60	415.50	
3+50									414.65	
									6.33	
	420.98					420.98				

Walker
Johnson
Branby
Pope

"A" – Runway - Rough Grades.
Re Stake - Portion.
from

					Lt 85'	Rt 85'
					C-0.17	F 0.08
					411.87	411.87
					412.04	411.79
131+00					4.50	4.75
					C 0.08	F 0.18
					411.55	411.62
					411.61	411.44
130+00					4.93	5.10
					F 0.20	0.00 Grade
					411.25	411.51
					411.05	411.51
129+00					5.49	5.03
					F 0.93	
					411.04	
					410.11	
128+00					6.41	
					F 2.04	
					410.90	
					408.86	
127+00					7.68	
				0.01		
				406.46		
			10.09	406.45	Check	℄ Stub Sta - 20+00 Rwy "B"
B.M.	10.35	416.54		406.19		℄ Stub Sta - 19+50 Rwy "B"
						P.12 F.B. 1860

Walker
Johnson
Branby
Pope

"A" Runway - Rough Grades
Re-stake Portion

						Lt.	℄	Rt.
						85'		85'
						C 0.16		F 0.34
						413.79		413.79
						413.95		413.45
137+00						5.70		6.20
						C 0.16		C 0.09
						413.47		413.47
						413.63		413.56
136+00						6.02		6.09
						C 0.19		F 0.37
						413.15		413.15
						413.34		412.88
135+00						6.31		6.77
					Stub 85' Rt.		419.65	
T.P.	6.85	419.65	3.74	412.80	134+00	C-0.18		F 0.03
						412.83		412.83
						413.01		412.80
134+00						3.53		3.74
						C 0.19		F 0.10
						412.51		412.51
						412.70		412.41
133+00						3.84		4.13
						0.00 Grade		F 0.09
						412.19		412.19
						412.19		412.10
132+00						4.35		4.44
							416.54	

"A" Runway - Rough Grades
Re-staked Portion

						Lt 85'	℄	Rt 85'
T.P.	6.82	422.11	4.36	415.29	Hub 85' Lt 142+00	F 0.10		C 0.07
						415.39		415.39
						415.29		415.46
142+00						4.36		4.19
						F 0.29		C 0.25
						415.07		415.07
						414.78		415.32
141+00						4.87		4.33
						F 0.35		C 0.20
						414.75		414.75
						414.40		414.95
140+00						5.25		4.70
						C 0.11		C 0.34
						414.43		414.43
						414.54		414.77
139+00						5.11		4.88
						F 0.07		F 0.36
						414.11		414.11
						414.04		413.75
138+00						5.61		5.90

417.65

Walker
Johnson
Branby
Pope

"A" Runway - Rough Grades
Restoke Portion

				Lt 85'	℄	Rt. 85'
			0.03			
			415.33			
		6.81	415.30	Checked Conc. mon - 146+00 ℄ Runwy "A"		
				415.63		414.63
146+00				6.48		7.48
				F 0.51		F 1.95
				416.35		416.35
				415.84		414.40
145+00				6.27		7.71
				F 0.30		F 2.20
				416.03		416.03
				415.73		413.83
144+00				6.38		8.28
				C 0.03		F 0.43
				415.71		415.71
				415.74		415.28
143+00				6.37		6.83
					422.11	

~ Gibbs Airport ~

TAXIWAY "F" ~ Slope Stakes

on NLY End on West Side

5+25

4+75

4+50.5 = E.C. 25' Radius

B.C. 25'R

FB 1860-38

check 5+25 50' Lt. 522 418.72

410 423.94 419.84

"F" Taxiway ℄ Rt. 50' ℄ Ditch

< 50' > < 12.5' >

415.66 8.28 3.75 3.16

8.28 C 4.53 C 0.59

11.3 5.0 R.P.

C 1.18

417.65

418.83

5.11

415.15 8.79 4.55 4.39

8.79 C 4.24 C 0.16

10.7 5.0 R.P.

414.90 9.04 5.64

9.04 C 3.40

8.5

423.94

B.M. 5+75 Taxiway "F" 50' Lt. on stub

FB 1860/38

Toriway "F"
Slope Stakes

℄ Ditch

Slope = 2.5 : 1

			.001				
Check 6+25		3.08	420.87	416.27			
			420.86				
5+75				416.07	7.87	2.35	
				7.87	2.35	2.39	
					5.52	F004	
					13.75	5.0 RP.	
	423.94			423.94			

Walker
Johnson
Pope
Riley
10-13-48

TAXIWAY "F" Slope Stakes
for Daylighting on Left Side
(in Lieu of Ditch.)

Excess Yardage = 129 yards

(Ditch = 679 yards.
Daylighting = 808)

1:1 Slope

6+75					
6+25					
TP	4.77	425.10	3.29	420.33	6+25 50' Lt. = Hub
5+75					
5+25					
4+75					
TP	8.96	423.62	6.09	414.66	
	5.42	420.75		415.33	

℄

7.50	7.09	6.59	419.26	
7.50	5.50	4.92		
0.00	C-1.59	C-1.67	5.84	
166	125	75		
7.83	7.58	7.08	6.58	419.27
7.83	6.89	5.92	4.93	
0.00	C 0.69	C 1.16	C 1.65	5.83
200	175	125	75	
6.30	6.80	5.80	5.30	419.07
5.9	6.80	4.90	3.86	
C 0.4	00	C 0.90	C 1.44	4.55
175	225	125	75	
		6.27	5.71	418.66
		6.27	5.14	
		00	C 0.57	4.96
		131	75	
				418.15
				5.47

42362
F

B.M. Conc. Mon. 46+00 ℄ Runway

Taxiway "F" ~ Slope Stakes

℄

10+75

7.17 6.81 415.02
7.17 6.25
0.00 C 0.56 6.06
111 75

9+75

5.87 415.76
5.87
0.00 5.32
55

421.08

0.02
418.36
2.70 421.08 6.72 418.38 OK.

Stub 30' Lt
7+75

7+75

7.15 418.62
7.15
0.00 6.48
67

7+25

7.41 7.31 6.81 419.04
7.41 6.79 5.20
0.00 C 0.52 C -1.61 6.06
135 175 75

425.10

Taxiway "F" Slope Stakes

℄

0.01
415.95 CK. Stob 50' Lt
5.12 415.96 10+75

10.16
10.16
0.00
265

11+26.28

9.76	9.26	8.76	8.26	413.57
9.22	8.82	7.52	4.86	7.51
C 0.54	C 0.44	C 1.24	C 3.40	
225	175	125	75	

10+75

8.86	8.55	8.05	7.55	414.28
8.86	8.08	7.22	6.13	
0.00 C	0.47 C	0.83	C 1.42	6.80
206	175	125	75	

421.08

Walker
Johnson
Pope
Riley
10-14-48

TAXIWAY "C" ROUGH GRADES
Re-Stake - Portion
From 34+00

Station	Lt		Rt	
	30		30	150
	CO 13		Grade	CO 95
36+50	411.95	412.25	411.95	410.75
	412.08		411.95	411.70
	5.39		5.47	5.72
	FO 03		CO 42	CO 70
36+00	411.98	412.28	411.98	410.78
	411.95		412.40	411.68
	5.47		5.02	5.79
	CO 05		C1 55	C2 53
35+50	412.01	412.31	412.01	410.81
	412.06		412.56	412.34
	5.36		3.86	4.08
	CO 48		C2 40	C3 93
35+00	412.04	412.34	412.04	410.84
	412.52		414.44	414.77
	4.90		2.98	2.65
	CO 84		C2 09	C3 52
34+50	412.07	412.37	412.07	410.87
	412.91		414.16	414.39
	4.51		3.26	3.03
	CO 08		C1 99	~~C3 52~~ C3 82
34+00	412.10	412.40	412.10	410.90
	412.18		414.09	414.42
	5.29		3.33	2.70

417.42

Taxiway "C" - Rough Grades
Restake - Portion

Station	Lt. 30'	℄	Rt. 50'	150'
Cont. on P. 35	FO .16		FO .70	CO .07
39+50	411.76 410.60 5.42	412.06	411.76 411.06 4.96	410.56 410.63 5.39
	FO .10		FO .52	Grade
39+00	411.79 411.69 4.33	412.09	411.79 411.27 4.75	410.59 410.59 5.43
	CO .18		FO .62	CO .30
38+50	411.82 412.00 4.02	412.12	411.82 411.20 4.82	410.62 410.92 5.10
	FO .12	416.02 (See P-37)	FO .82	CO .40
38+00	411.85 411.73 5.69	412.15	411.85 411.03 6.39	410.65 411.05 6.37
	FO .10		FO .70	CO .44
37+50	411.88 411.78 5.69	412.18	411.88 411.18 6.29	410.68 411.12 6.30
	CO .11		FO .99	CO .71
37+00	411.91 412.02 5.40	412.21	411.91 410.92 6.50	410.71 411.42 6.00

417.42

Walker
Johnson
Branby
Pope
10-6-48

~ Gibbs Airport ~

TAXIWAY - "D" Rough { Finish Grades

4+00

3+50

3+00

2+50

Note: Grades for this Section are in Notes for Runway "B" - 1860-9

0+00 = ℄ Runway "B"

6.28 409.35 403.07

Left 50	25'	℄	25'	Right 50'
C 0.18				F 0.53
404.32		404.82		404.32
404.50				403.79
4.85				5.56
C 0.22				C 0.13
403.96		404.46		403.96
404.18				404.09
5.17				5.26
F 0.02				C 0.13
403.61		404.11		403.61
403.59				403.74
5.76				5.61

F 0.40		Grade
403.61	403.86	403.61
403.17		403.61
6.18		5.74

409.35

B.M. on Conc. Mon 8+00 Runway B - FB 1860/2

TAXIWAY "D" — Rough Grades

						Left	℄	Right
					on Hub	50'		50
T.P.	7.61	413.01	3.95	405.40		C 0.90		F 0.68
						406.08 406.98 2.37	406.58	406.08 405.40 3.95
6+50								
						C 0.24		F 0.65
						405.73 405.97 3.38	406.23	405.73 405.08 4.27
6+00								
						C 0.17		F 0.58
						405.38 405.55 3.80	405.88	405.38 404.80 4.55
5+50								
						C 0.38		F 0.62
						405.02 405.40 3.95	405.52	405.02 404.40 4.95
5+00								
						C 0.46		F 0.43
						404.67 405.13 4.22	405.17	404.67 404.24 5.11
4+50								
		409.35					409.35	

TAXIWAY - "D" - Rough Grades

	Lt.	℄	Rt.
	50'		50'
	C 1.98		Grade
9+00	406.50 408.48 4.53	407.15	406.65 406.66 6.35
	C 1.50		C 0.21
8+50	406.82 408.32 4.69	407.32	406.82 407.03 5.98
	C 0.92		C 0.06
8+00	406.85 407.77 5.24	407.35 407.10	406.85 406.91 6.10
	C 1.05		F 0.28
7+50	406.72 407.77 5.24	407.22	406.72 406.44 6.57
	C 1.38		F 0.41
7+00	406.44 407.82 5.19	406.94	406.44 406.03 6.98

41301

Walker
Johnson
Branby
Pope

Taxiway - "D" - Rough Grades

					Lt	℄	Rt.
					50'		50'
Cont. on P-40							
			0.02				
			405.32	110+00 ℄			
		7.71	405.30	Rwy "A"			
					F.B. 1860 P. 22		
					C 0.50		F 0.49
					405.43	405.93	405.43
10+50					405.93		404.94
					7.08		8.07
					C 1.19		F 0.70
					405.85	406.35	405.85
10+00					407.04		405.15
					5.97		7.86
					C 1.68		F 0.38
					406.32	406.82	406.32
9+50					408.00		405.94
					5.01		7.07
		413.01				413.01	

Restoko Portion } → Taxiway "C" Rough Grades

Cont. from P-30

	Lt.	℄	Rt.	
	30'		30	150'
			F4.52	C0.65
42+50	411.53	411.83	411.53	410.33
			407.01	410.98
			9.01	5.04
			F4.56	C0.27
42+00	411.59	411.89	411.59	410.39
			407.03	410.66
			8.99	5.36
			F3.74	C0.01
41+50	411.62	411.92	411.62	410.42
			407.88	410.43
			8.14	5.59
			F3.04	C0.02
41+00	411.61	411.91	411.61	410.41
			408.57	410.43
			7.45	5.59
	F2.89		F2.37	C0.19
40+50	411.70	412.00	411.70	410.50
	408.81		409.33	410.69
	7.21		6.69	5.33
	F2.53		F0.94	C0.24
40+00	411.73	412.03	411.73	410.53
	409.20		410.79	410.77
	6.82		5.23	5.25

416.02 (See P-37

Taxiway "C" - Rough Grades

Re Stake Portion · Cont. from P-35

	Lt	℄	Rt	
	30		30'	150'
	F0.69		F1.27	F0.40
	411.26	411.56	411.26	410.06
45+00	410.57		409.99	409.66
	5.17		5.75	6.08
	F1.51		F1.17	C0.39
	411.20	411.50	411.20	410.00
44+50	409.69		410.03	410.39
	6.05		5.71	5.35
	F1.88		F1.72	C0.64
	411.15	411.45	411.15	409.95
44+00	409.27		409.43	~~409.59~~ 410.59
	6.47		6.31	5.15
	F2.35		F2.78	C0.55
	411.42	411.72	411.42	410.22
43+50	409.07		408.64	410.77
	6.67		7.10	4.97
			415.74 (See P-37)	
			F3.89	C0.56
43+00	411.48	411.78	411.48	410.28
			407.59	410.84
			8.43	5.18
	416.02			

Taxiway "C" Rough Grades

				0.00		
				414.02	30' Rt	
C.K.			3.40	414.02	33+50	F.B. 1860 - P - 72
					150' Rt	
T.P.	6.50	417.42	5.10	410.92	38+50	
					30' Lt	
T.P.	6.95	416.02	6.67	409.07	43+50	
						C.K. - Sta
			5.33	410.41		45+00 - 250' Rt Rwy "B"
B.M.	4.54	415.74		411.20		Conc. Mon. 46+00 Rwy "B" F.B. 1860-2

~~Taxiway "C" Rough Grades~~

Taxiway "D" Finish Grades

cont. on P-68

		25' Lt	12.5 Lt	℄	Rt 12.5	25' Rt
15+49.67		405.00	405.13	405.25	405.13	405.00
15+24.67 = P.V.C		405.09	405.22	405.34	405.22	405.09
14+99.67		405.29	405.42	405.54	405.42	405.29
14+49.67 = Brk		405.67	405.80	405.92	405.80	405.67
14+24.67 = E.C. 50' R		405.86	405.99	406.11	405.99	405.86
75°	406.01					
60°	406.15					
45°	406.34	13+99.67 406.20	406.25	13+99.67 406.30	406.23	406.15 = 13+99.67
30°	406.48					
15° from B.C	406.57					
13+74.67 = SLY. Line Rwy "A"	406.65 75'	406.55	406.50	406.50	406.47	406.45

Cont. from P-74

401.87

BM Hd Wall

Taxiway "D" Grades (Finish Grades)
for Curve on Lt. from 11+75.98
to E.C. of 48.69' Radius.

E.C. 48.69' Radius-
75° from B.C.

60° from B.C. 48.69' Radius
45° from B.C.

30° from B.C 48.69' R on curve
15° from B.C.

11+75.98
B.C. = P.C.C 48.69' R

* from P.44
409.57

5' Lt.

℄
48.69' Radius

F 0.24
406.65
406.41
3.16
406.59

F 0.47
406.53
406.06
3.51
406.37

F 0.33
406.20
405.87
3.70
406.00

F 0.40
405.80
405.40
4.17

Taxiway "D" (Finish Rough Grade)

Cont. from P. 34

12+24.67

12+00

Central Angle

11+75.98 = E.C. 100' Radius

11+50 35°07'

11+00 6°28.5

10+88.71 = B.C. 100' R

Cont. from P-34 409.57

℄

30' Lt.		30' Rt.
406.56	406.50	406.44
406.18	406.25	406.13
F 0.35		F 0.83
405.75	406.03	405.75
405.40		404.92
4.17		4.65
F 0.29		F 1.29
405.58	405.88	405.58
405.29		404.29
4.28		5.28
F 0.16		F 0.71
405.47	405.77	405.47
405.31		404.76
4.26		4.81

Taxiway "D" - (Finish Rough Grades)

Cont. from 40

14+99.67

14+49.67 BTK 406.60

③ = 90° from E.C. on Curve = 75' Rt. ℄ of Runway A

② = 60° From E.C. on Curve

① = 30° from E.C. on Curve

14+24.67 = E.C. 50' Radius Return on Lt.

13+74.67 = SLY line Runway "A"

12+99.67 = ℄ Runway "A"

7.43 410.77 403.34

Lt	℄	Rt.
30'		30'
C 0.36		C 0.20
405.24	405.54	405.24
405.60		405.44
5.17		5.33
C 0.38		F 0.09
405.62	405.92	405.62
406.00		405.53
4.77		5.24
C 0.20		
406.48		
406.68		
4.09		
F 0.06	C 0.13	F 0.18
406.15		
406.03	405.81	405.81
4.68	406.11	
	405.94	405.63
	4.83	5.14
406.65	406.51	406.50	406.44
75' Lt.			
	407.31	407.25	407.19

B.M. Conc. Mon 108+00 "A" Rwy
FB 1860
2

Taxiway "D" - Rough Grades

Cont. from P. 41

60° from B.C. on Curve

30° from B.C. on Curve

15+74.67 = P.C. 50' R Lt & Rt

15+49.67 = Brk

15+24.67 = P.V.C.

41077

Lt	℄	Rt
30'		30
C 004		C 003
405.72		405.61
405.76		405.64
5.01		5.13
C 026		C 011
405.40		405.34
405.66		405.45
5.11		5.32
F 0.10		F 0.06
405.06	405.36	405.06
404.96'		405.00'
6.81		5.77
F 1.28		F 1.07
404.95	405.25	404.95
403.67'		403.88'
7.10		6.89
C 0.10		C 0.24
405.04	405.34	405.04
405.14'		405.28'
5.63		5.49

Taxiway "D" - Rough Grades
~~Restake Portion~~

90° from B.C. = E.C. on Tax "C"
~~10+88.71~~ =

Lt	℄	Rt
405.80		F0.11 405.65 405.54 5.23
	410.77	

Walker
Johnson
Pope
Riley 10-19-48

RUNWAY "A" - Rough Grades.
from 109+00 to 110+00 on Left =
= Supplementary Grades to FB 1860-22

Restaked - 4-28-49
See FB 1996-76

110+50					
110+00					
109+50					
109+00					
	4.25	409.57		405.32	

Left

	250	200	150	75	℄
	F 0.48			F 0.88	F 1.30
	405.43			406.55	407.30
	404.95			405.67	406.00
	4.62			3.90	3.57
	F 0.38	F 0.64		F 1.23	F 1.88
	404.90	405.35	~~405.80~~	406.45	407.20
	404.52	404.71		405.22	405.32
	5.05	4.86		4.35	4.25
	F 0.39	F 0.89	F 1.30	F 1.63	F 2.26
	404.60	405.10	405.60	406.35	407.10
	404.21	404.21	404.30	404.72	404.84
	5.36	5.36	5.27	4.85	4.73
	F 0.58	F 0.94	F 1.49	F 2.01	F 2.56
	404.50	405.00	405.50	406.25	407.00
	403.92	404.06	404.01	404.24	404.44
	5.65	5.51	5.56	5.33	5.13

B.M. ℄ Hub 110+00 Runway "A" FB 1860/22

Taxiway "D" Drainage Ditch.
on Left. ~ Slope Stakes.

4+00				
	6.08	410.58		404.50
3+50				
3+00				
2+50				
	6.06	410.56		404.50

3' RP

℄ Ditch

5.98 8.76 401.82
5.86 5.98
C-0.12 C 2.78 8.76
13.9

B.M. on Stub 50' Lt 4+00 P-31

6.40 9.10 401.46
6.40 6.40
0.00 C 2.7 9.10
13.5

6.45 9.45 401.11
6.68 6.45
F 0.23 C 3.0 9.45
15

9.70 400.86
9.70

410.56

B.M. on Stub 50' Lt 4+00 P-31

Taxiway "D" Drainage Ditch

on Left - Slope Stakes

	5' P.P.		℄
6+50	3.20	7.00	403.58
	3.20	3.80	
	0.00	C 3.80	7.00
		19'	
6+00	4.42	7.35	403.23
	4.42	4.42	
	0.00	C 2.93	7.35
		14.5'	
5+50	4.93	7.71	402.87
	4.93	4.93	
	0.00	C 2.78	7.71
		14.0	
5+00	4.99	8.06	402.52
	4.99	4.99	
	0.00	C 3.07	8.06
		15.0	
4+50	5.67	8.41	402.17
	5.67	5.67	
	0.00	C 2.74	8.41
		13.5	
			410.58

Taxiway "D" Drainage Ditch

on Left - Slope Stakes

				0.02				
50 Lt				408.48				
Chk 9+00 P-33			212	408.46				
Cont. on P. 48								
9+00					1.85	5.22	405.36	
					1.80	1.85		
					C 0.05	C 3.37	5.22	
						16.8		
8+50					2.31	5.57	405.01	
					2.31	2.31		
					0.0	C 3.26	5.57	
						16.3		
8+00					2.83		404.65	
					2.83			
					0.0		5.93	
							2.83	
							C 3.1	
							15.5	
7+50					2.38	6.28	404.30	
					2.41	2.38		
					F 0.03	C 3.9	6.28	
						19.5		
7+00					2.50	6.64	403.94	
					2.39	2.50		
					C 0.11	C 4.14	6.64	
						20.7'		
		410.58					410.58	

0.71 %

Taxiway "D" - Ditch on Left

Slope Stakes

9+50 End of Ditch.

405.71

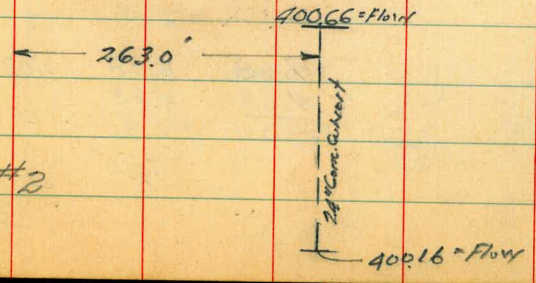
Runway "B" - Ditch on Rt. & Lt.

	Slope Stakes	5' RP		℄ Ditch
13+00	4.83 4.83 0.00	8.83 4.83 C4.00 20.0	401.78	8.83
12+50	4.98 4.98 0.00	9.08 4.98 C4.10 20.5	401.53	9.08
12+00	5.23 5.23 0.00	9.33 5.23 C4.10 20.5	401.28	9.33
11+50	5.48 5.48 0.00	9.58 5.48 C4.10 20.5	401.03	9.58
11+00	5.53 5.53 0.00	9.83 5.53 C4.30 21.5	400.78 0.00	9.83
		5.44	405.17 405.17	250' Lt Sta-11+50 10' Rt
	5.60	410.61	405.01	10+77
10+77 - BLY End 24" Conc. Culvert				
	4.49	410.30	405.81	

	℄ Ditch	Rt 5' R.P.
401.78	8.52 6.10 C2.42 12.0	6.10 6.10 0.00
401.53	8.77 6.17 2.6 13.0	6.17 6.17 0.00
401.28	9.02 6.22 2.8 14	6.22 6.22 Grade
401.03	9.27 6.47 C2.80 14.0	6.47 6.56 F0.09
400.78	9.52 6.90 C2.62 13.0	6.90 6.90 0.00

F.B. 1860 - P10
Rwy "B"
Drain

B.M #2



Runway "B" - Ditch on Rt. & Lt
Slope Stakes.

	5' R.P. Lt			℄ Ditch		
				0.01		
	6.63	412.89	4.35	406.27	250' Lt	F.B. 1860 - P. 11
				406.26	16+00	Rwy "B"

16+00	4.23	7.33	403.28				403.28	7.02	4.12	
	4.23	4.23						4.12	4.26	
	0.00	C 3.10	7.33				7.02	C 2.9	F 0.14	
		16.5						14.5		
15+50	4.28	7.58	403.03				403.03	7.27	4.27	
	4.28	4.28						4.27	4.34	
	0.00	C 3.30	7.58				7.27	C 3.0	F 0.07	
		16.5						15		
15+00	4.33	7.83	402.78				402.78	7.52	4.42	
	4.33	4.33						4.42	4.42	
	0.00	C 3.50	7.83				7.52	C 3.1	0.00	
		17.5						15.5		
14+50	4.18	8.08	402.53				402.53	7.77	4.97	
	4.18	4.18						4.97	4.87	
	0.00	C 3.90	8.08				7.77	C 2.8	C 0.1	
		19.5						14		
14+00	4.53	8.33	402.28				402.28	8.02	5.52	
	4.43	4.53						5.52	5.79	
	C 0.10	C 3.80	8.33				8.02	C 2.50	F 0.27	
		19.0						12.5		
13+50	4.68	8.58	402.03				402.03	8.27	5.77	
	4.68	4.68						5.77	5.95	
	0.00	C 3.90	8.58				8.27	C 2.5	F 0.18	
		19.5						12.5		
			410.61							

℄ Runway "B" S-65°E

	℄ Ditch		Rt. 5' R.P.
← 262.5' →			
	403.28	7.02	4.12
		4.12	4.26
	7.02	C 2.9	F 0.14
		14.5	
	403.03	7.27	4.27
		4.27	4.34
	7.27	C 3.0	F 0.07
		15	
	402.78	7.52	4.42
		4.42	4.42
	7.52	C 3.1	0.00
		15.5	
	402.53	7.77	4.97
		4.97	4.87
	7.77	C 2.8	C 0.1
		14	
	402.28	8.02	5.52
		5.52	5.79
	8.02	C 2.50	F 0.27
		12.5	
← 262.5' →			
	402.03	8.27	5.77
		5.77	5.95
	8.27	C 2.5	F 0.18
		12.5	
	410.30		

Runway "B" Slope Stakes –

Ditch	Rt & Lt	5' R.P. Lt		℄ Ditch
18+00		5.71 5.71 0.00	8.61 5.71 C-2.90 14.5	404.28 8.61
17+50		5.96 5.84 C0.12	8.86 5.96 C-2.90 14.5	404.03 8.86
17+00		6.21 6.21 0.00	9.11 6.21 C2.90 14.5	403.78 9.11
16+50		6.36 6.36 0.00	9.36 6.36 C3.00 15.0	403.53 9.36

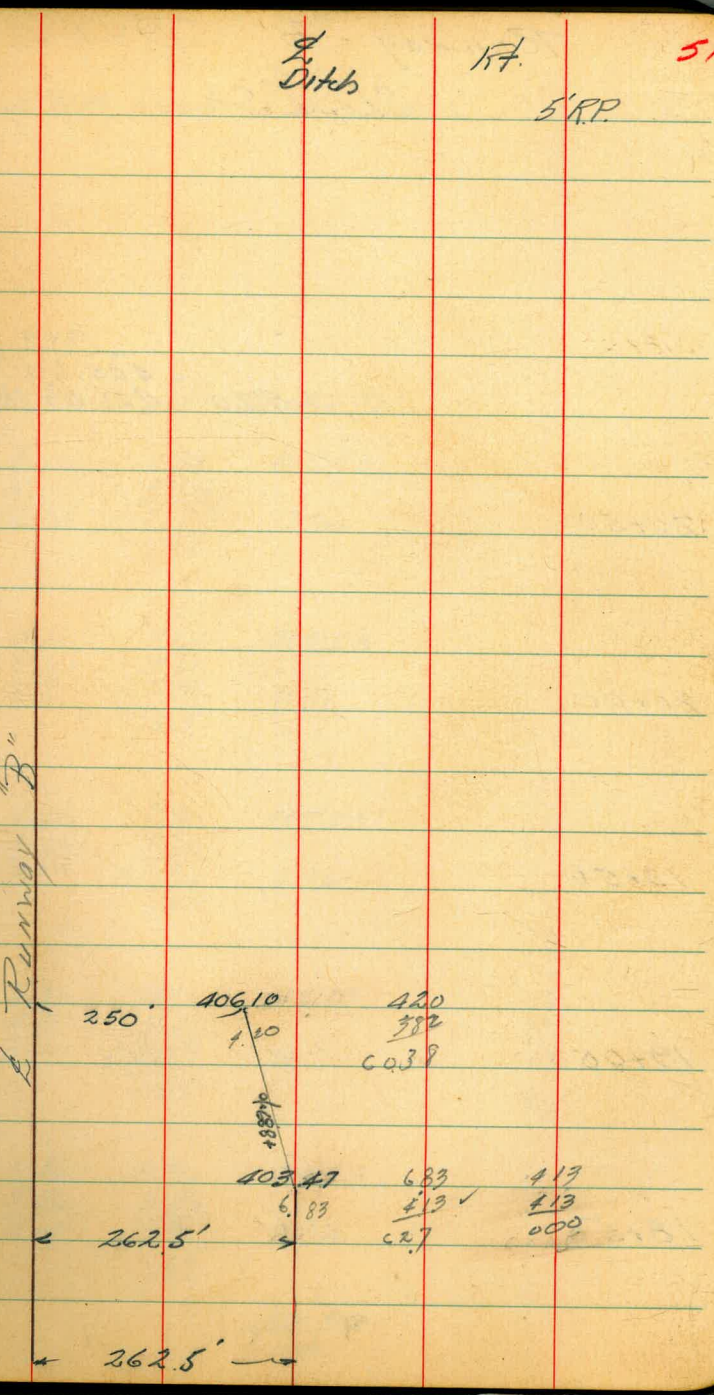
417.89 - P50

16+63.87 = 250' Rt. of ℄ "B" Rwy. = Bisector Line

8.88%

16+37.06 = Int. Ditches "B" & "A" Runway

410.30



Runway "B" - Ditch on Left

Slope Stakes

			0.00
			405.69
		7.20	405.69 CK-
20+50			
20+00			
19+50			
19+00			
18+50			

Lt.

5 R.P. Ditch ℄

Pipe & Drain Sta - 20+82.92

5.16	7.36	405.53
5.01	5.16	
C0.15	C-2.20	7.36
	11.0	
5.11	7.61	405.28
5.11	5.11	
0.00	C-2.50	7.61
	12.5	
5.26	7.86	405.03
5.26	5.26	
0.00	C-2.60	7.86
	13.0	
5.31	8.11	404.78
5.31	5.31	
0.00	C-2.80	8.11
	14.0	
5.46	8.36	404.53
5.46	5.46	
0.00	C2.90	8.36
	14.5	
		412.89

℄ Runway "B"

Walker
Johnson
Pope
Riley
10-26-48

Runway "A"

Slope Stakes from 112+00
To on Left.

Slope = 5:1

114+50			
114+00			
113+50			
113+00			
112+50			
112+00			
	5.24	413.72 / 2	408.48

		Left	℄ Runway "A"
S.R.P.		250'	
		< 250' >	
5.12 / 5.12 / 0.00	9.12 / 5.12 / C 4.0 / 20	404.60	9.12
5.22 / 5.22 / Grade	8.82 / 5.22 / C 3.6 / 18	404.90	8.82
5.32 / 5.32 / Grade	8.52 / 5.32 / C 3.2 / 16	405.20	8.52
5.22 / 5.22 / Grade	8.22 / 5.22 / C 3.0 / 15	405.50	8.22
5.02 / 5.02 / Grade	7.82 / 5.02 / C 2.8 / 14	405.90	7.82
	7.52 / 6.22 / C 1.3 / 6.5	406.20	7.52

B.M. on stake 50' Lt 9+00 P-33

Runway "A"

Slope Stakes on Left

Cont from p. 53

116+00

115+50

115+00

413.72

Lt.
250'

5' R.P.

405.9

7.92 405.80

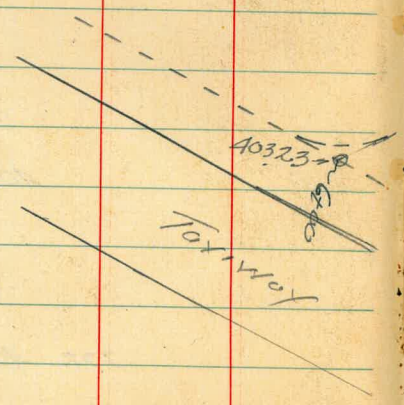
7.92

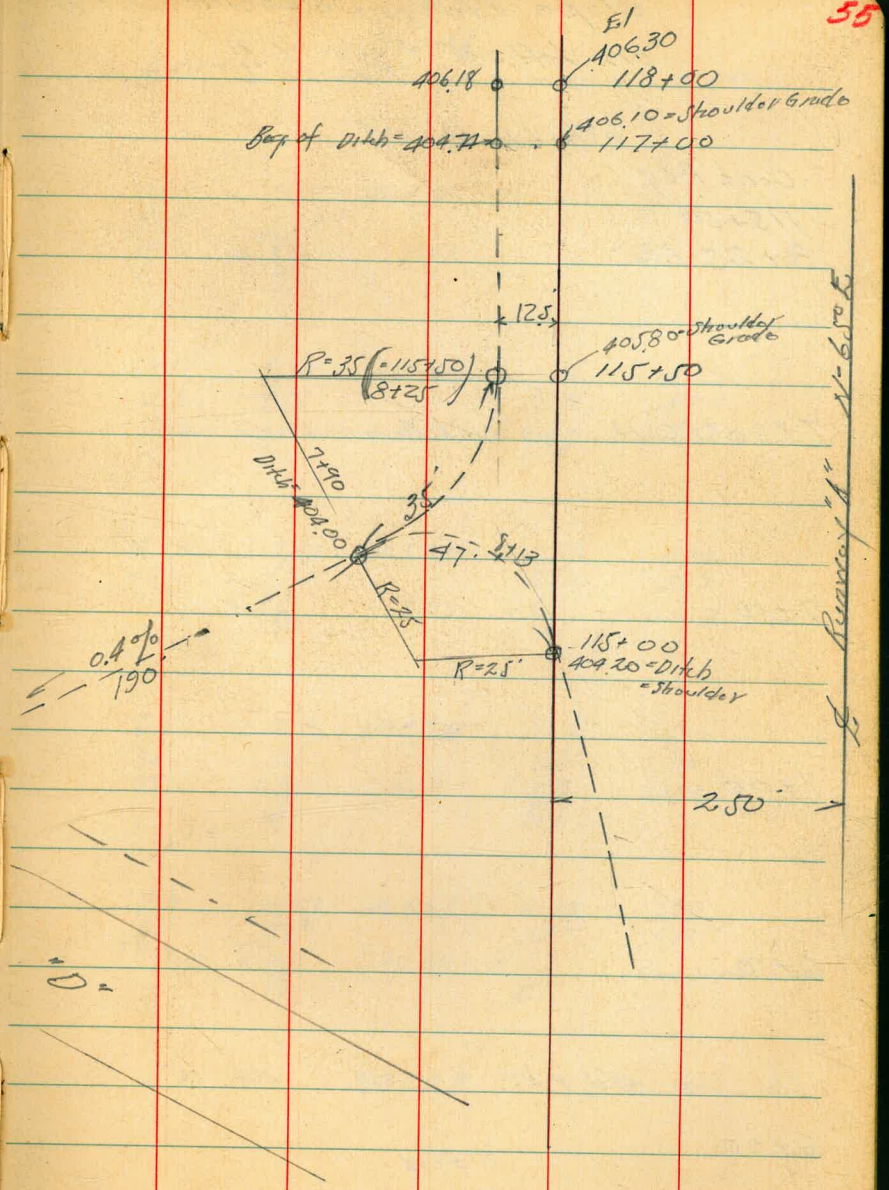
5.32 9.52 404.20
5.32 5.32
000 (4.2
21

9.52

Walker
Johnson
Pope
Riley
10-26-48

Location Special Ditch
To Serve Runway "A"
And Taxiway "D" as shown
Slope 5:1
Stakes & Grades P. 56-57





Slope Stakes - Special Ditch
on left of Runway "A"
" " " Taxiway "D"

Sketch P. 55

Cont. P-57
- 115+50
8+25 = E.G

7+90 = P.C. Lt. - Int. Ditch from West

7+50

7+00

6+50

Chk 6+00 14.5' Lt. P-46 756 406.16

6+00

π P-54
413.72

5' RP		℄ Ditch		5' RP
5.68	9.58	404.14		
5.68	5.68			
000	C 3.9	9.58		
	19.5			
5.72	9.72	404.00	9.72	5.42
5.72	5.72		5.42	5.30
000	C 4.0	9.72	C 4.3	C 0.12
	20		21.5	
5.99	9.89	403.83	9.89	5.39
5.99	5.99		5.39	5.29
0.00	C 3.9	9.89	C 4.5	C 0.10
	19.5		22.5	
6.5	10.0	403.73	10.0	6.10
6.5	6.5		6.1	6.02
00	C 3.5	10.0	C 3.9	C 0.08
	17.5		19.5	
7.09	10.29	403.43	10.29	6.39
7.21	7.09		6.39	6.31
F 0.12	C 3.2	10.29	C 3.9	C 0.08
	16		19.5	
		403.23		

Slope Stakes Special Ditch
on Left of Runway "A"
Cont. from P 56

5' RP.

℄ Ditch. ← 262.5' → ℄ Runway "A"

404.10

8+13 on Curve 25' R

CK 250' Lt

5.32 408.40 116+50 Runwy "A"

		7.14	7.54	406.18
		7.26	7.14	
118+00	No Ditch at this station.	F0.12	C0.40	7.54
			2.0	
	at this Station	6.90	8.98	404.74
117+00	Depth of Ditch = 1.36' below shoulder	6.90	6.90	
		0.00	C3.08	8.98
			15.4	
		5.93	9.18	404.54
116+50		6.19	5.93	
		F0.26	C3.25	9.18
			16.2	
		5.78	9.38	404.34
116+00		5.78	5.78	
		0.00	C3.6	9.38
			18	

Taper Ditch To Zero

Cont. from P-56 413.72

TAXIWAY - "D" - Subgrade

Cont. P-59

1+00 = P.V.C

60° from B.C. on Curve

30° from B.C. on Curve

B.C. 50' Radius = 75' from ℄ Rwy "B"

0+75 = South edge Runway

0+00 = ℄ "B" Runway
5.82 408.39
~~6.11~~ ~~409.18~~ 403.07

Lt.	℄	Rt.
25.3'		25.3'
404.07 (04.07)	404.07 (03.98)	403.89
4.82	4.82	5.00
404.02		
4.87		
404.49		
4.40 .01 L		
404.70		
4.19	404.45 (04.38)	404.32 (04.26) 404.20

B.M. Conc Mon 8+00 "B" Runway

Taxiway "D" Subgrade
Cont. from P-58

2+25 Brk

2+00 = Brk

1+75 = Brk

1+50 = Brk

1+25 Brk = E.C on Lt.

Lt	℄	Rt.
25.3		25.3
403.24	403.49 (03.36)	403.24
5.65	5.40	5.65
403.25	403.50 (03.38)	403.25
5.64	5.39	5.64
403.31	403.56 (03.44)	403.31
5.58	5.33	5.58
403.43	403.68 (03.56)	403.43
5.46	5.21	5.46
403.60 (03.73)	403.85 (03.73)	403.60
5.29	5.04	5.29

Taxiway "D" Subgrades

Cont. from P. 60

						Lt	℄	Rt
						25.3'		25.3'
4+00						404.24'	404.49' (0.36)	404.24'
						4.51'	4.26'	4.51'
3+50						403.88'	404.13' (0.40)	403.88'
						4.87'	4.62'	4.87'
3+00 = EVC						403.53'	403.78' (0.35)	403.53'
						5.22'	4.97'	5.22'
2+75 Brk						403.38'	403.63' (0.30)	403.38'
						5.37'	5.12'	5.37'
T.P.	5.97	408.75	5.61	403.28	25.3 Rt 2+50			
2+50 Brk						403.28'	403.53' (0.34)	403.28'
						5.61'	5.36'	5.61'

Taxiway "D" - Subgrades

6+50					
6+00					
T.P.	6.11	411.41	3.45	405.30	25.3 Rt 5+50
5+50					
5+00					
4+50		408.75			

	Lt.	℄	Rt.
	406.00	406.25 (0612)	406.00
	5.91	5.16	5.91
	405.65	405.90 (0577)	405.65
	5.76	5.51	5.76
		411.41 / ℄	
	405.30	405.55 (0542)	405.30
	3.45	3.20	3.45
	404.94	405.19 (0506)	404.94
	3.81	3.56	3.81
	404.59	404.84 (0471)	404.59
	4.16	3.91 OIL	4.16

	Lt	℄	Rt.
	25.3'		25.3'
8+00	406.77'	407.02' (.06.89')	406.77'
	4.64'	4.39'	4.64'
7+75	406.73'	406.98' (.0685)	406.73'
	4.68'	4.43'	4.68'
7+50	406.64'	406.89' (.0676)	406.64'
	4.77'	4.52'	4.77'
7+25	406.52'	406.77' (.0664)	406.52'
	4.89'	4.64'	4.89'
7+00 = P.V.C	406.36'	406.61' (.06.48)	406.36'
	5.05'	4.80'	5.05'

4141

Taxiway "D" - Subgrade

	Lt	℄	Rt
	2.53'		2.53'
9+25	406.42'	406.67' (06.54)	406.42'
	4.99'	4.74'	4.99'
9+00	406.57'	406.82' (06.69)	406.57'
	4.84'	4.59'	4.84 .012
8+75	406.67'	406.92' (06.79)	406.67'
	4.74'	4.49'	4.74' .012
8+50	406.74'	406.99' (06.86)	406.74'
	4.67'	4.42'	4.67'
8+25	406.78'	407.03' (06.90)	406.78'
	4.63'	4.38'	4.63'

41141

Taxiway "D" - Subgrade

10+75 Brk.				
10+50 Brk.				
10+25 Brk.				
108+00 Rwy A Chk BM Mon	7.19	410.53 = Corrected π	7.18	403.34 / 403.31
T.P.	4.72	410.49	5.64	405.77
10+00 = P.R.V.C				
9+75				
9+50				
		411.41		

Lt.	℄	Rt.
25.3'		25.3'
405.24	405.49 (05.36)	405.24
5.29	5.04	5.29
405.35	405.60 (05.47)	405.35
5.18	4.93	5.18
405.55 ~~405.53~~	405.80 ~~405.78~~ (05.67)	405.55 ~~405.53~~
4.98	4.73	4.98

410.53 π Corrected .04 discrepancy.

405.77	406.02 (405.89)	405.77
5.64	5.39	5.64
406.02	406.27 (06.14)	406.02
5.39	5.14	5.39
406.24	406.49 (06.36)	406.24
5.17	4.92	5.17

Taxiway 'D' - Subgrades

	Lt.	℄	Rt.
	25.3'		25.3
	405.87	405.92 (405.89')	405.82
12+00 = E.V.C	4.66 (.01 H)	4.61	4.71
	405.45	405.70 (.0557')	405.45
11+75 Brk	5.08	4.83	5.08
	405.30	405.55 (.0542)	405.30
11+50 Brk	5.23	4.98	5.23
	405.21	405.46 (405.33)	405.21
11+25 Brk	5.32	5.07	5.32
	405.19 (.032)	405.44 (405.31)	405.19
11+00 = Brk	5.34	5.09	5.34
	410.53		

Taxiway "D" Subgrades

								Lt 12.5' 25		℄ 12.5'	Rt 25
15° from B.C. on Curve								406.24			
13+74.67 B.C. 50' Radius on Lt.								406.~~27~~ 32 4.67			
								406.18	406.17	406.17	406.14 406.11
13+74.67 SLY Line Runway 'A'											
	7.60	410.94		403.34	B.M. Mon	108+00 Rwy A			410.94		
								406.20			
60° from B.C.C 48.69 R								4.33			
								405.87			
30° from PCC 48.69 R								4.66			
								406.22		406.17	406.13
12+24.67 N Line Runway											

TAXIWAY "D" Subgrades

Cont. P-67

15+24.67 = P.I.C P-42

14+99.67

14+49.67 = B.C.

14+24.67 = E.C. 50'R on Lt

75° from B.C. on Curve

60° from B.C. on "

45° " " " "

30° from B.C. 50'R

410.94

Lt 12.5'	℄ 12.5'	Rt.
404.76 0.489	405.01 0.489	404.76
6.18	5.93	6.18
404.96 0.509	405.21 0.509	404.96
5.98	5.73	5.98
405.34 0.597	405.59 0.597	405.34
5.60	5.35	5.60
405.53 0.566	405.78 0.566	405.53
5.41	5.16	5.41

405.68

405.82

5.12

405.99

406.15

Taxiway "D" Subgrade

90° from B.C. = E.C. on Taxiway "C"

75° " "

60° from B.C. on Curve

45° " " " "

30° from B.C. on Curve

15° " " " "

15+74.67 = B.C. 50' Radius Lt + Rt.

15+49.67

410.94

Lt	℄	Rt.
405.52		405.37
5.42		5.55 Reading 5.57
405.48		405.35
405.43		405.33
5.51 0.1 H		5.61 0.1 H
405.29		405.20
405.11		405.06
5.83		5.88 0.1 H
404.97		404.90
404.78 0.19	405.03 0.19	404.78
6.16	5.91	6.16
404.67 0.10	404.92 0.10	404.67
6.27	6.02	6.27 0.1

Taxiway "D"
Finish Grades
Cont. from p-38

	Lt		Lt 25'	12.5	℄	12.5	Rt 25'	
16+24.67 = NLY. Line Taxiway "C"								
90° from BC	405.85 75'		405.80	405.79	405.77	405.76	405.75	405.70
75° " "		405.81						405.68
60° " "		405.76						405.66
45° " "		405.62						405.53
15+99.74				405.52	405.57	405.50		
30° " "		405.44						405.39
15° " "		405.30						405.23
15+74.67 = BC. 50'R			405.11	405.24	405.36	405.24	405.11	

Cont. from p-38

TAXIWAY - "D" - Finish Grades

		Lt 25	Lt 12.5	℄	Rt 12.5	Rt 25
1+75 = Brk.		403.64	403.77	403.89	403.77	403.64
1+50 = Brk.		403.76	403.89	404.01	403.89	403.76
1+25 Brk = E.C. on Lt.		403.93	404.06	404.18	404.06	403.93
75° from B.C.	404.14					
1+00 = P.V.C.		404.40	404.40	404.40	404.31	404.22
0+75		404.78	404.71	404.65	404.59	404.53
60° from B.C. on Curve	404.35					
45° from B.C.	404.59					
30° from B.C. on Curve	404.82					
15° from B.C.	404.94					
B.C. 50' Radius = 75' Rt. & Rwy "B"	405.03					

Taxiway-"D" - Finish Grades

	Lt 25	Lt 12.5	℄	Rt 12.5	Rt 25
4+00	404.57	404.70	404.82	404.70	404.57
3+50	404.21	404.34	404.46	404.34	404.21
3+00 = E.V.C.	403.86	403.99	404.11	403.99	403.86
2+75 = Brk.	403.71	403.84	403.96	403.84	403.71
2+50 = Brk.	403.61	403.74	403.86	403.74	403.61
2+25 = Brk.	403.57	403.70	403.82	403.70	403.57
2+00 = Brk.	403.58	403.71	403.83	403.71	403.58

checked ✓

Taxiway - "D" - Finish Grades

	Lt 25	Lt 12.5	℄	Rt 12.5	Rt 25
7+25	406.85	406.98	407.10	406.98	406.85
7+00 = P.V.C.	406.69	406.82	406.94	406.82	406.69
6+50	406.32	406.46	406.58	406.46	406.32
6+00	405.98	406.11	406.22	406.11	405.98
5+50	405.63	405.76	405.88	405.76	405.63
5+00	405.27	405.40	405.52	405.40	405.27
4+50	404.92	405.05	405.17	405.05	404.92

Taxiway - "D" - Finish Grades

	Lt 25	Lt 12.5	℄	Rt 12.5	Rt 25
9+00	406.90	407.03	407.15	407.03	406.90
8+75	407.00	407.13	407.25	407.13	407.00
8+50	407.07	407.20	407.32	407.20	407.07
8+25	407.11	407.24	407.36	407.24	407.11
8+00	407.10	407.23	407.35	407.23	407.10
7+75	407.06	407.19	407.31	407.19	407.06
7+50	406.97	407.10	407.22	407.10	406.97

Taxiway - "D" - Finish Grades

	Lt 25	Lt 12.5	℄	Rt 12.5	Rt 25
10+75 = Brk.	405.57	405.70	405.82	405.70	405.57
10+50 = Brk.	405.68	405.81	405.93	405.81	405.68
10+25 = Brk.	405.88	406.01	406.13	406.01	405.88
10+00 = P.R.V.C.	406.10	406.23	406.35	406.23	406.10
9+75	406.35	406.48	406.60	406.48	406.35
9+50	406.57	406.70	406.82	406.70	406.57
9+25	406.75	406.88	407.00	406.88	406.75

Taxiway - "D" - Finish Grades

Cont P-38

	Lt 25	Lt 12.5	℄	Rt 12.5	Rt 25
12+24.67 = N Line Rwy "A"	406.55	406.53	406.50	406.48	406.46
12+00 = E.V.C.	406.20	406.23	406.25	406.20	406.15
11+75 = BrK -	405.78	405.91	406.03	405.91	405.78
11+50 = BrK	405.63	405.76	405.88	405.76	405.63
11+25 = BrK.	405.54	405.67	405.79	405.67	405.54
11+00 = BrK.	405.52	405.65	405.77	405.65	405.52

Walker
Johnson
Pope
Crawford
4-13-49

Grades For Ditch on North Side
Runway "8"
from 10+77 to 20+82.92

Station					Elev. Flow Line	Cuts.	offsets
Cont P.76							
18+00			5.59	405.57	404.30	1.27	7'Lt.
17+50			5.64	405.52	404.05	1.47	"
17+00			5.79	405.37	403.79	1.58	"
16+50			6.48	404.68	403.54	1.14	"
16+00			6.68	404.48	403.30	1.18	"
15+50			7.00	404.16	403.05	1.11	"
15+00			6.98	404.18	402.79	1.39	"
14+50			7.16	404.00	402.54	1.46	"
14+00			7.49	403.67	402.30	1.37	"
13+50			8.25	402.91	402.05	0.86	"
T.P.	8.30	411.16	6.23	402.86			"
13+00			6.23	402.86	401.81	1.05	"
12+50			6.19	402.90	401.56	1.34	"
12+00			6.54	402.55	401.32	1.23	"
11+50			6.87	402.22	401.07	1.15	"
11+00			6.01	403.08	400.83	2.25	"
10+77 = Chk Existing Culvert			8.35	400.74	400.74 400.66		
	6.02	409.09		403.07		B.M. Conc. Mon	

Ditch - Cont. from P. 75

Runway "B"				Elev. Flow Line	Cuts	Offset
				0.02		
				Plan = 405.69		
20 + 82.92 = Chk. Exist. Flow Line			8.25	405.71	405.71	
20+50			6.92	407.04	405.53	1.51'	7' H
20+00			7.25	406.71	405.28	1.43'	"
19+50			7.49	406.47	405.03	1.49'	"
19+00			7.91	406.05	404.79	1.26'	"
18+50			8.02	405.94	404.54	1.40	"
T.P.	8.39	413.96	5.59	405.57		
		411.16				

Walker
Johnson
Pope
Crawford
4-15-49

Grades - Ditch - on Lt. Runway "B"

Station					Flow Line	
137+00			6.24	410.90	409.64	1.26
136+50			6.33	410.81	409.48	1.33
136+00			6.66	410.48	409.32	1.16
135+50			7.38	409.76	409.16	0.60
135+00			7.24	409.90	409.00	0.90
134+50			7.71	409.43	408.84	0.59
134+00			7.94	409.20	408.68	0.52
133+50			8.44	408.70	408.52	0.18
T.P. 133+00	8.81	417.14	7.01	408.33	408.36	-0.03
132+50			7.22	408.12	408.20	-0.08
132+00			7.54	407.80	408.04	-0.24
131+50			7.35	407.99	407.88	0.11
131+00			7.49	407.85	407.72	0.13
130+50			6.93	408.41	407.56	0.85
130+00			6.72	408.62	407.40	1.22
129+50			6.34	409.00	407.24	1.76
129+00			6.67	408.67	407.08	1.59
128+50			7.09	408.25	406.92	1.33
128+00	Brk		7.30	408.04	406.76	1.28
	9.63	415.34		405.71		

BM = Flow Line Existing Culvert

Runway "B" - Ditch on Lt

Cont. from p. 77

Station					Elev. Flow Line	
			3.92	415.32		
145+00			4.47	414.77	412.20	2.57
144+50			6.10	413.14	412.04	1.10
144+00			6.63	412.61	411.88	0.73
143+50			6.96	412.28	411.72	0.56
143+00			6.87	412.37	411.56	0.81
142+50			7.19	412.05	411.40	0.65
142+00			7.50	411.74	411.24	0.50
141+50			7.76	411.48	411.08	0.40
141+00			7.75	411.49	410.92	0.57
140+50			7.98	411.26	410.76	0.50
140+00			8.32	410.92	410.60	0.32
139+50			8.08	411.16	410.44	0.72
T.P. 139+00	861	419.24	6.51	410.63	410.28	0.35
138+50			5.87	411.27	410.12	1.15
138+00			5.88	411.26	409.96	1.30
137+50			6.43	410.71	409.80	0.91
		417.14				

Table I.—Minutes in Decimals of a Degree.

1′	.0167	11′	.1833	21′	.3500	31′	.5167	41′	.6833	51′	.8500
2	.0333	12	.2000	22	.3667	32	.5333	42	.7000	52	.8667
3	.0500	13	.2167	23	.3833	33	.5500	43	.7167	53	.8833
4	.0667	14	.2333	24	.4000	34	.5667	44	.7333	54	.9000
5	.0833	15	.2500	25	.4167	35	.5833	45	.7500	55	.9167
6	.1000	16	.2667	26	.4333	36	.6000	46	.7667	56	.9333
7	.1167	17	.2833	27	.4500	37	.6167	47	.7833	57	.9500
8	.1333	18	.3000	28	.4667	38	.6333	48	.8000	58	.9667
9	.1500	19	.3167	29	.4833	39	.6500	49	.8167	59	.9833
10	.1667	20	.3333	30	.5000	40	.6667	50	.8333	60	1.0000

Table II.—Inches in Decimals of a Foot.

1-16	3-32	⅛	3-16	¼	5-16	⅜	½	⅝	¾	⅞
.0052	.0078	.0104	.0156	.0208	.0260	.0313	.0417	.0521	.0625	.0729

1	2	3	4	5	6	7	8	9	10	11
.0833	.1667	.2500	.3333	.4167	.5000	.5833	.6667	.7500	.8333	.9167

Table III.—Radii, Ordinates and Deflections.

Deg.	Radius	Mid. Ord.	Tan. Offset	Def. for 1 Foot	Deg.	Radius	Mid. Ord.	Tan Offset	Def. for 1 Foot
0° 10′	34377.5	.036	.145	0.05′	7°	819.02	1.528	6.105	2.10′
20	17188.8	.073	.291	0.10	20′	781.84	1.600	6.395	2.20
30	11459.2	.109	.436	0.15	30	764.49	1.637	6.540	2.25
40	8594.42	.145	.582	0.20	40	747.89	1.673	6.685	2.30
50	6875.55	.182	.727	0.25	8	716.78	1.746	6.976	2.40
1	5729.65	.218	.873	0.30	20	688.16	1.819	7.266	2.50
10	4911.15	.255	1.018	0.35	30	674.69	1.855	7.411	2.55
20	4297.28	.291	1.164	0.40	40	661.74	1.892	7.556	2.60
30	3819.83	.327	1.309	0.45	9	637.28	1.965	7.846	2.70
40	3437.87	.364	1.454	0.50	20	614.56	2.037	8.136	2.80
50	3125.36	.400	1.600	0.55	30	603.80	2.074	8.281	2.85
2	2864.93	.436	1.745	0.60	40	593.42	2.110	8.426	2.90
10	2644.58	.473	1.891	0.65	10	573.69	2.183	8.716	3.00
20	2455.70	.509	2.036	0.70	30	546.44	2.292	9.150	3.15
30	2292.01	.545	2.181	0.75	11	521.67	2.402	9.585	3.30
40	2148.79	.582	2.327	0.80	30	499.06	2.511	10.02	3.45
50	2022.41	.618	2.472	0.85	12	478.34	2.620	10.45	3.60
3	1910.08	.655	2.618	0.90	30	459.28	2.730	10.89	3.75
10	1809.57	.691	2.763	0.95	13	441.68	2.839	11.32	3.90
20	1719.12	.727	2.908	1.00	30	425.40	2.949	11.75	4.05
30	1637.28	.764	3.054	1.05	14	410.28	3.058	12.18	4.20
40	1562.88	.800	3.199	1.10	30	396.20	3.168	12.62	4.35
50	1494.95	.836	3.345	1.15	15	383.07	3.277	13.05	4.50
4	1432.69	.873	3.490	1.20	30	370.78	3.387	13.49	4.65
10	1375.40	.909	3.635	1.25	16	359.27	3.496	13.92	4.80
20	1322.53	.945	3.718	1.30	30	348.45	3.606	14.35	4.95
30	1273.57	.982	3.926	1.35	17	338.27	3.716	14.78	5.10
40	1228.11	1.018	4.071	1.40	18	319.62	3.935	15.64	5.40
50	1185.78	1.055	4.217	1.45	19	302.94	4.155	16.51	5.70
5	1146.28	1.091	4.362	1.50	20	287.94	4.374	17.37	6.00
10	1109.33	1.127	4.507	1.55	21	274.37	4.594	18.22	6.30
20	1074.68	1.164	4.653	1.60	22	262.04	4.814	19.08	6.60
30	1042.14	1.200	4.798	1.65	23	250.79	5.035	19.94	6.90
40	1011.51	1.237	4.943	1.70	24	240.49	5.255	20.79	7.20
50	982.64	1.273	5.088	1.75	25	231.01	5.476	21.64	7.50
6	955.37	1.309	5.234	1.80	26	222.27	5.697	22.50	7.80
10	929.57	1.346	5.379	1.85	27	214.18	5.918	23.35	8.10
20	905.13	1.382	5.524	1.90	28	206.68	6.139	24.19	8.40
30	881.95	1.418	5.669	1.95	29	199.70	6.360	25.04	8.70
40	859.92	1.455	5.814	2.00	30	193.18	6.583	25.88	9.00

Note. Chord Deflection=2 times tangent deflection.

Table IV.—Tangents and Externals to a 1° Curve.

Central Angle	Tangent	External	Central Angle	Tangent	External	Central Angle	Tangent	External
1°	50.00	.22	11°	551.70	26.50	21°	1061.9	97.57
10′	58.34	.30	10′	560.11	27.31	10′	1070.6	99.16
20	66.67	.39	20	568.53	28.14	20	1079.2	100.75
30	75.01	.49	30	576.95	28.97	30	1087.8	102.35
40	83.34	.61	40	585.36	29.82	40	1096.4	103.97
50	91.68	.73	50	593.79	30.68	50	1105.1	105.60
2	100.01	.87	12	602.21	31.56	22	1113.7	107.24
10	108.35	1.02	10	610.64	32.45	10	1122.4	108.90
20	116.68	1.19	20	619.07	33.35	20	1131.0	110.57
30	125.02	1.36	30	627.50	34.26	30	1139.7	112.25
40	133.36	1.55	40	635.93	35.18	40	1148.4	113.95
50	141.70	1.75	50	644.37	36.12	50	1157.0	115.66
3	150.04	1.96	13	652.81	37.07	23	1165.7	117.38
10	158.38	2.19	10	661.25	38.03	10	1174.4	119.12
20	166.72	2.43	20	669.70	39.01	20	1183.1	120.87
30	175.06	2.67	30	678.15	39.99	30	1191.8	122.63
40	183.40	2.93	40	686.60	40.99	40	1200.5	124.41
50	191.74	3.21	50	695.06	42.00	50	1209.2	126.20
4	200.08	3.49	14	703.51	43.03	24	1217.9	128.00
10	208.43	3.79	10	711.97	44.07	10	1226.6	129.82
20	216.77	4.10	20	720.44	45.12	20	1235.3	131.65
30	225.12	4.42	30	728.90	46.18	30	1244.0	133.50
40	233.47	4.76	40	737.37	47.25	40	1252.8	135.35
50	241.81	5.10	50	745.85	48.34	50	1261.5	137.23
5	250.16	5.46	15	754.32	49.44	25	1270.2	139.11
10	258.51	5.83	10	762.80	50.55	10	1279.0	141.01
20	266.86	6.21	20	771.29	51.68	20	1287.7	142.93
30	275.21	6.61	30	779.77	52.89	30	1296.5	144.85
40	283.57	7.01	40	788.26	53.97	40	1305.3	146.79
50	291.92	7.43	50	796.75	55.13	50	1314.0	148.75
6	300.28	7.86	16	805.25	56.31	26	1322.8	150.71
10	308.64	8.31	10	813.75	57.50	10	1331.6	152.69
20	316.99	8.76	20	822.25	58.70	20	1340.4	154.69
30	325.35	9.23	30	830.76	59.91	30	1349.2	156.70
40	333.71	9.71	40	839.27	61.14	40	1358.0	158.72
50	342.08	10.20	50	847.78	62.38	50	1366.8	160.76
7	350.44	10.71	17	856.30	63.63	27	1375.6	162.81
10	358.81	11.22	10	864.82	64.90	10	1384.4	164.86
20	367.17	11.75	20	873.35	66.18	20	1393.2	166.95
30	375.54	12.29	30	881.88	67.47	30	1402.0	169.04
40	383.91	12.85	40	890.41	68.77	40	1410.9	171.15
50	392.28	13.41	50	898.95	70.09	50	1419.7	173.27
8	400.66	13.99	18	907.49	71.42	28	1428.6	175.41
10	409.03	14.58	10	916.03	72.76	10	1437.4	177.55
20	417.41	15.18	20	924.58	74.12	20	1446.3	179.72
30	425.79	15.80	30	933.13	75.49	30	1455.1	181.89
40	434.17	16.43	40	941.69	76.86	40	1464.0	184.08
50	442.55	17.07	50	950.25	78.26	50	1472.9	186.29
9	450.93	17.72	19	958.81	79.67	29	1481.8	188.51
10	459.32	18.38	10	967.38	81.09	10	1490.7	190.74
20	467.71	19.06	20	975.96	82.53	20	1499.6	192.99
30	476.10	19.75	30	984.53	83.97	30	1508.5	195.25
40	484.49	20.45	40	993.12	85.43	40	1517.4	197.53
50	492.88	21.16	50	1001.7	86.90	50	1526.3	199.82
10	501.28	21.89	20	1010.3	88.39	30	1535.3	202.12
10	509.68	22.62	10	1018.9	89.89	10	1544.2	204.44
20	518.08	23.38	20	1027.5	91.40	20	1553.1	206.77
30	526.48	24.14	30	1036.1	92.92	30	1562.1	209.12
40	534.89	24.91	40	1044.7	94.46	40	1571.0	211.48
50	543.29	25.70	50	1053.3	96.01	50	1580.0	213.86

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be 41.9+(20—16)÷2 or 2 ft. added to 41.9 =43.9. For slopes of 1 on 1 see inside of front cover.

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