

1861

NEW YORK

ENGINEERS  
FIELD BOOK  
No. 203

# EUGENE DIETZGEN CO.

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

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# 1861

## CITY ENGINEER'S OFFICE

This Field Book is manufactured of a High Grade 50% Rag Paper having a WATER RESISTING SURFACE, and is sewed with Bing Special Enamel Waterproof thread.

Made in U. S. A.

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1

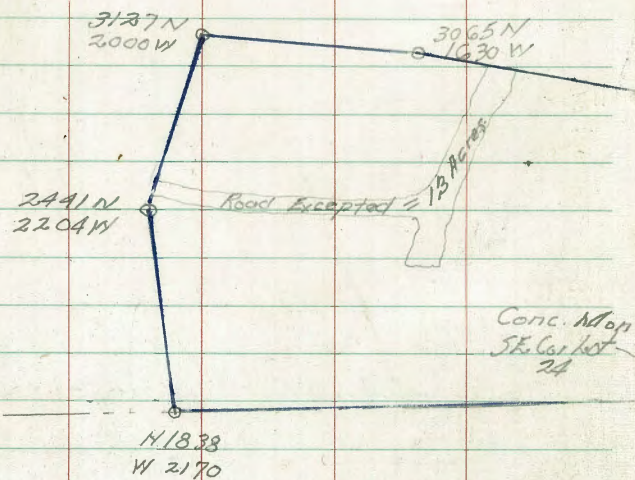
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A table with 6 columns and 20 rows. The columns are defined by vertical red lines, and the rows are defined by horizontal green lines. The table is currently empty.

A table with 1 column and 20 rows. The rows are defined by horizontal green lines, and the column is defined by a vertical red line. The table is currently empty.

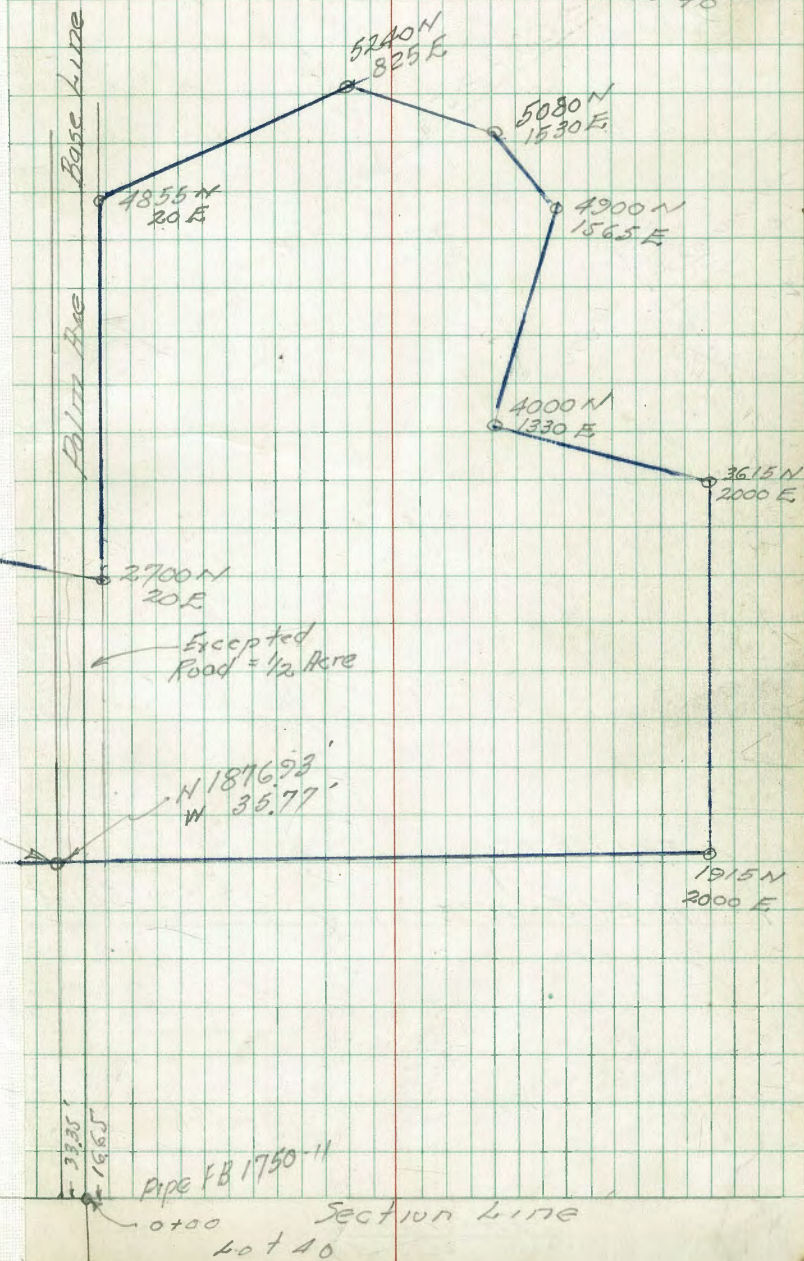
Gibbs Airport -  
 Coordinates of Boundary line  
 of Brush Area to be cleared  
 by Contractor.

Total Road Area Excepted = 1.8 Acres



Lot 37

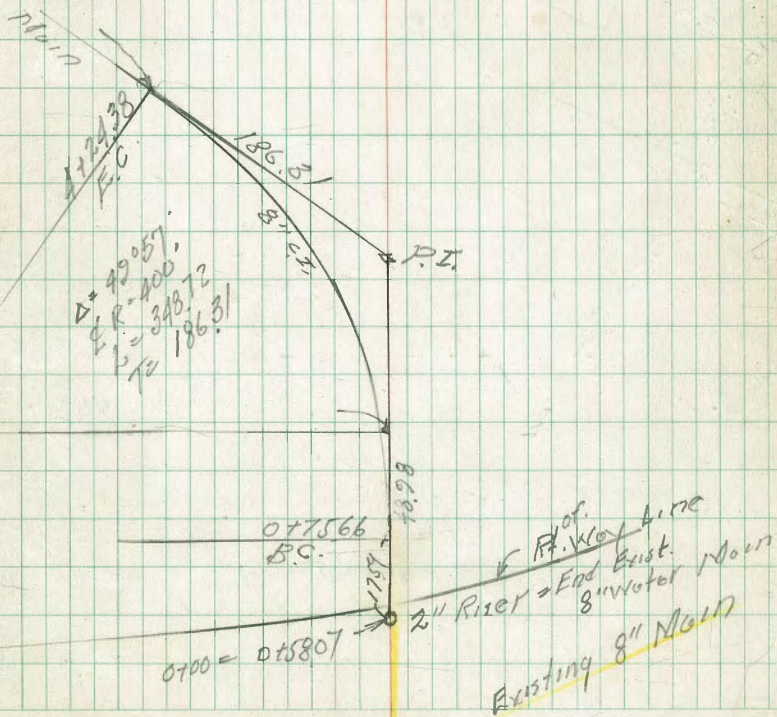
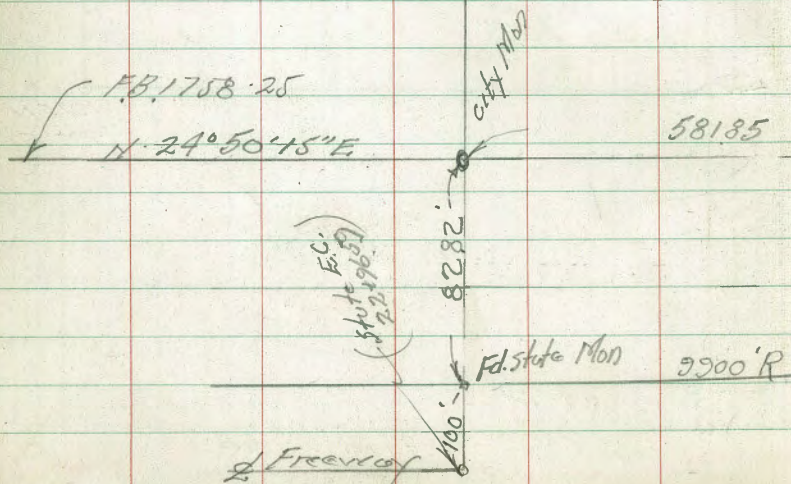
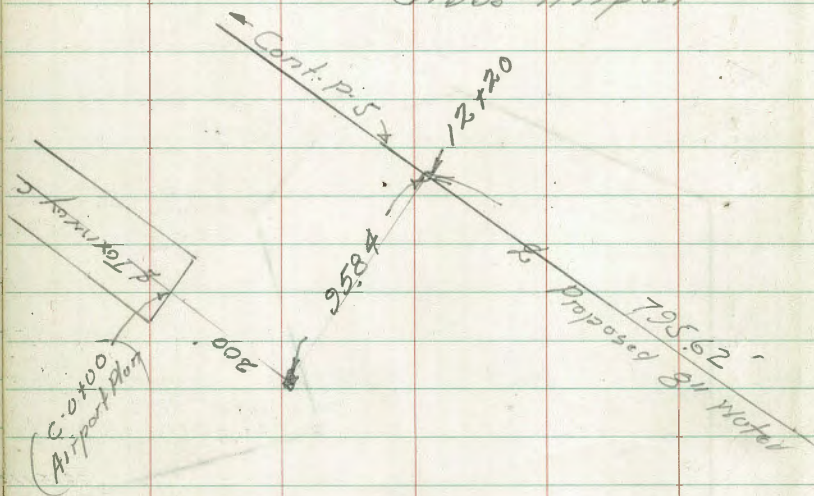
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 Johnson  
 Frank Gregory  
 7-22-48 3



Grades for Construction 8" Water  
Gibbs Airport

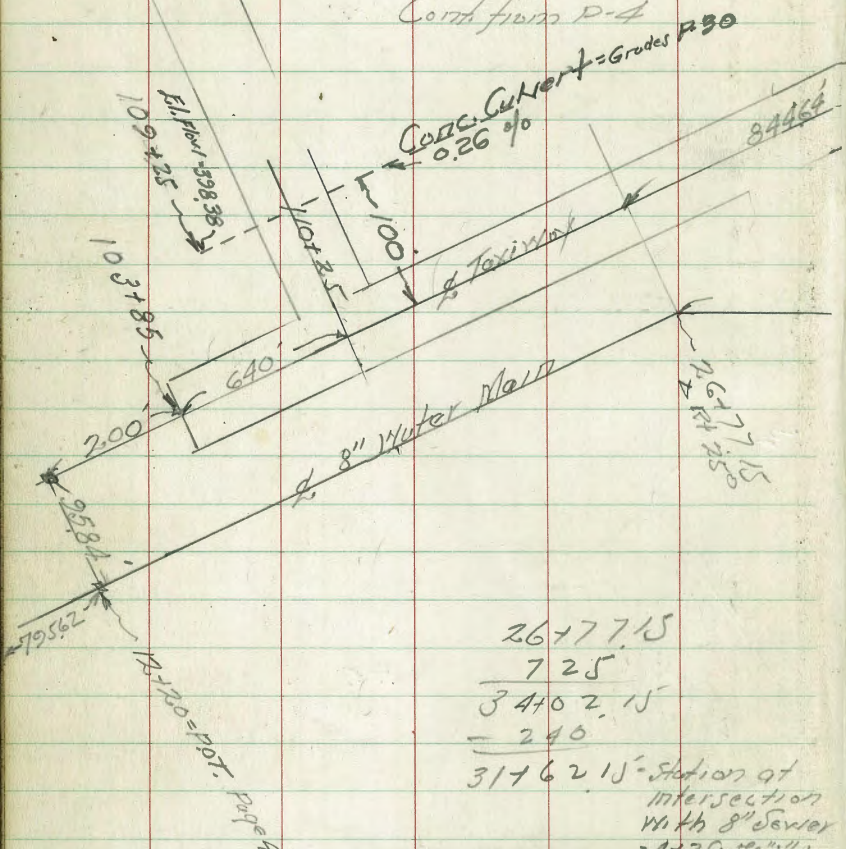
Main

Mulker  
Johnson  
F.H. Gregory  
8-2-48



Gibbs Airport  
8" Water Main

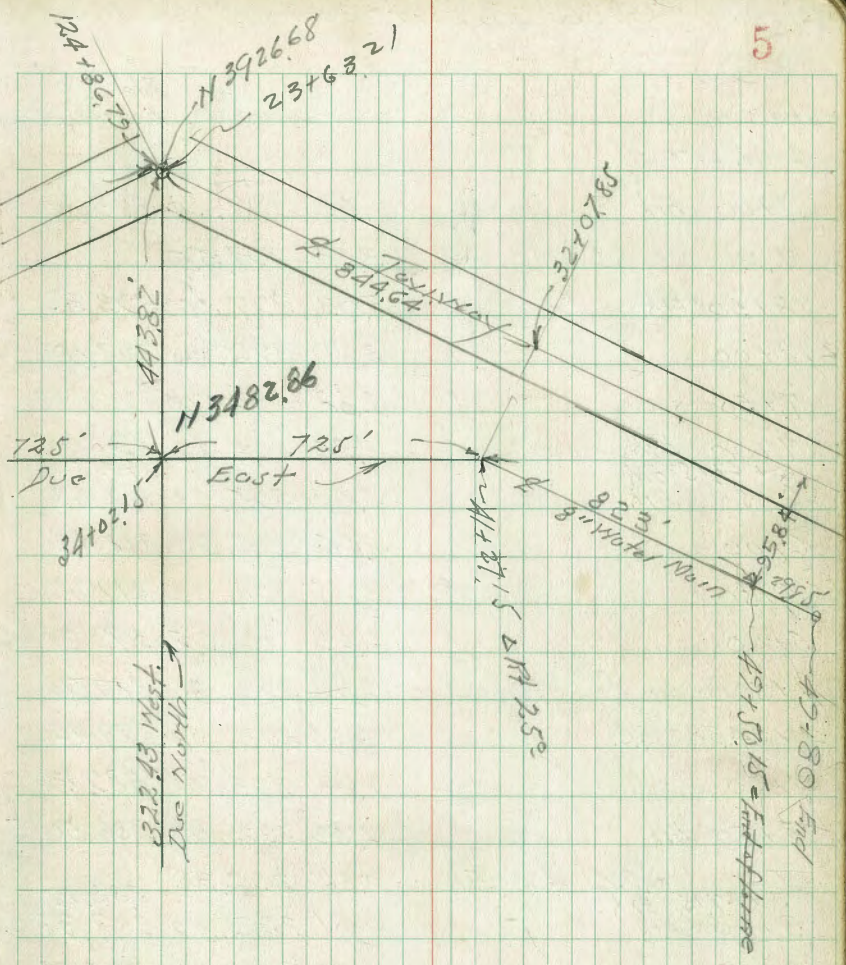
Contd from P-4



26777.15  
725  
3402.15  
- 240

31762.15 - Station at  
Intersection  
With 8" Sewer  
- 4+29.59" Line

4+29.19 Flow line = 402.00  
Water Main Bottom Trench = 403.20  
Bottom Water Bell 402.95  
Top Bell Sewer 402.92



Gibbs Airport - Grades 8" Water Main

Sta			Elev. Bottom Pipe	
Cont. p. 7				
9+00	Bik	10.53	397.91	393.81
T.P.	10.89	408.44	303	397.55
8+50	<del>Bik</del>		3.03	397.55
8+00			3.67	396.91
7+50			3.88	396.70
7+00	Bik		4.36	396.22
6+50	Bik		5.00	395.58
6+00			4.65	395.93
5+50			5.45	395.13
5+00			6.63	393.95
4+50			6.78	393.80
4+24.38	F.C.		6.61	393.97
4+00			6.64	393.94
3+50	Bik		7.59	392.92
T.P.	8.26	400.58	0.86	392.32
3+00	Bik		0.86	392.32
2+50			2.39	390.79
2+00			4.55	388.63
1+50	Bik		6.03	387.15
1+00	Bik		5.83	387.35
0+75.66	B.C. Lt. Bik		6.34	386.84
0+58.07				377.38
0+00				377.38
	12.33	393.18		380.85

Note: Grades Revised  
8-6-48 C.B.M.  
per. request - Patterson

Cuts	offset	Revised Grades	Cuts
4.1	6' Lt.	394.30	3.6
4.2	"	393.90	3.6
3.8	"	393.50	3.4
3.82	"	393.10	3.6
3.6	"	392.70	3.6
3.3	"	392.26	3.3
4.3	"	392.80	4.1
4.1	"	391.34	3.8
3.56	"	390.88	3.1
4.04	"	390.42	3.4
4.5	"	390.20	3.7
4.8	"	389.96	4.0
4.5	"	Bik 389.50	3.5
4.94	"	388.0	4.3
4.9	"	386.50	4.3
4.25	"	385.0	3.7
4.27	"	Bik 383.50	3.7
5.97	"	381.38	6.0
7.7	"	379.14	7.7
		377.38	

B.M. #3 chisled Sy. Hd. Wall on Freeway.



Gibbs Airport  
Grades 8" Water Main

Station			El. Bot. Pipe	Cuts	offsets	Raised Grades	Cuts
19+00		4.51	406.94	401.0	5.9	401.50	5.4
18+50		4.74	406.71	401.0	5.7	401.50	5.2
18+00		4.64	406.81	401.0	5.8	401.50	5.3
17+50		4.07	407.38	401.0	6.4	401.50	5.9
T.P.	3.57	411.45	5.32	407.88		401.50	
17+00		5.32	407.88	401.0	6.9	401.50	6.4
16+50		7.39	405.91	401.0	4.9	401.50	4.3
16+00		8.47	404.73	401.0	3.7	401.50	3.2
15+50		8.38	404.82	401.0	3.8	401.50	3.3
			<sup>0.08</sup>				
	chk Hub	Corrected	407.21	405.19			
T.P.	5.99	413.20	1.31	407.13	4.8	401.50	
15+00		2.60	405.84	401.0	4.8	401.50	4.3
14+50		0.68	407.76	401.0	6.8	401.50	6.3
14+00		0.89	407.55	401.0	6.6	401.50	6.1
13+50	Brk	2.79	405.65	401.00	4.7	401.13	4.6
13+00	Brk	4.38	404.06	400.87	3.2	400.76	3.3
12+50		4.73	403.71	400.44	3.3	400.40	3.3
12+00		4.92	403.52	400.02	3.5	400.03	3.5
11+50	Brk	5.05	403.39	399.60	3.8	399.67	3.7
11+00	Brk	5.49	402.95	398.60	4.35	399.30	3.6
10+50		7.04	401.40	397.40	4.0	398.05	3.4
10+00		8.29	400.05	396.20	3.85	396.80	3.3
9+50		9.85	398.59	395.00	8.6	395.55	3.1
Cont. from p-6		40844					

Gibbs Airport - Grades 8" Water Main

Station	El. Bot. Pipe	Cuts	offsets	Revised Grades	Cuts
Cont. P. 9					
29+50	4.27 405.82 402.22	3.6'		402.37	3.15
29+00	4.32 405.77 402.0	3.8'		402.12	3.7
28+50	4.57 405.52 401.77	3.75'		401.86	3.7
28+00	4.81 405.28 401.55	3.7'		401.61	3.6
27+50	5.01 405.08 401.32	3.76		401.35	3.8
27+00 Bk	5.21 404.88 401.10	3.8'		401.10	3.8
26+77.15 Bk	5.31 404.78 401.0	3.8'		401.0	
26+77.15 = Δ 1st 25'	5.32 404.77 401.00	3.8'		401.0	
26+50	5.51 404.58 401.0	3.6'		401.0	
26+00	5.68 404.41 401.0	3.4'		401.0	
25+50	5.87 404.22 401.0	3.2'		401.0	
25+00	6.21 403.88 401.0	2.9'		401.0	
24+50	6.68 403.41 401.0	2.4'		401.0	
24+00	6.62 403.47 401.0	2.5'		401.0	
T.P. 647 410.09	7.83 403.62			401.0	
23+50	7.83 403.62 401.0	2.6'		401.00	2.6
23+00	7.36 404.09 401.0	3.1'		401.12	3.0
22+50	6.94 404.51 401.0	3.5'		401.25	3.2
22+00	6.43 405.02 401.0	4.0'		401.38	3.6
21+50 New Bk	5.91 405.54 401.0	4.5'		401.50	4.0
21+00	5.67 405.78 401.0	4.8'		401.50	4.3
20+50	5.37 406.08 401.0	5.1'		401.50	4.6
20+00	5.08 406.37 401.0	5.4'		401.50	4.9
19+50	4.71 406.74 401.0	5.7'		401.50	5.2

411.45

No Change

Gibbs Airport. - Grades 8" Water Main

Station

Revised  
Grades

Cuts

40+50	4.14	413.27	407.17	6.1	407.66	5.6
40+00	5.00	412.41	406.95	5.46	407.44	5.0
39+50	5.50	411.91	406.72	5.2	407.22	4.7
39+00	5.80	411.61	406.50	5.1	407.40	4.6
38+50	6.63	410.78	406.27	4.5	406.78	4.0
38+00	6.55	410.86	406.05	4.8	406.56	4.3
37+50	7.19	410.22	405.82	4.4	406.34	3.9
37+00	6.87	410.54	405.60	4.9	406.12	4.4
36+50	7.88	409.53	405.37	4.16	405.90	3.6
T.P.	8.21	417.41	3.26	409.20		
36+00	3.26	409.20	405.15	4.05	405.65	3.6
35+50	3.83	408.63	404.92	3.7	405.40	3.2
35+00	3.73	408.73	404.70	4.0	405.15	3.6
34+50	4.19	408.27	404.47	3.8	404.90	3.4
34+00	4.26	407.56	404.25	3.25	404.65	2.9
33+50	5.02	407.44	404.02	3.4	404.40	3.0
33+00	4.69	407.77	403.80	4.0	404.15	3.6
32+50	4.74	407.72	403.57	4.15	403.90	3.8
32+00	5.08	407.38	403.35	4.0	403.65	3.7
31+50	5.41	407.05	403.14	3.9	403.45	3.65
31+00	5.73	406.73	402.92	3.8	403.15	3.6
30+50	5.98	406.48	402.67	3.8	402.89	3.6
T.P.	6.44	412.46	4.07	406.02		
30+00	4.07	406.02	402.45	3.5	402.53	3.4

See Right  
Side of  
Page for  
New Cuts

MISS

41009

Station

Blow Bottom Pipe

Cuts

offsets

Revised Grades

Cuts

Station	Blow Bottom Pipe	Cuts	offsets	Revised Grades	Cuts
			0.04		
			417.74		
chk Hub 38+00 F.B. 1750-60	2.80	417.78			
49+80 = End					
49+50.75 = End of line	11.28	409.30	407.50	407.50	1.8
49+00	9.84	410.74	407.50	407.52	3.2 3'
48+50	5.30	415.28	407.50	407.55	7.7 7.5
48+00	3.47	417.11	407.50	407.58	9.5 9.4
47+50	3.25	417.33	407.50	407.61	2.7
47+00	3.72	416.86	409.50	407.64	9.3 9.1
46+50	3.33	417.25	407.50	407.67	9.6 9.4
46+00	2.87	417.71	407.50	407.70	10.0 9.2
45+50	4.44	416.14	407.50	407.73	8.4
45+00	4.57	416.01	407.50	407.76	8.2
44+50	5.65	414.93	407.50	407.79	7.1
44+00	5.69	414.89	407.50	407.82	7.1
43+50	6.75	413.83	407.50	407.85	6.0
TD	6.43	420.58	3.26	414.15	
43+00	3.26	414.15	407.50	407.88	6.3
42+50	3.21	414.20	407.50	407.91	6.3
42+00	3.49	413.92	407.50	407.94	6.0
41+50	4.44	412.97	407.50	407.97	5.0
41+27.15	4.32	413.09	407.50	408.00	5.1
41+27.15 Δ RT 25°	4.32	413.09	407.50	408.00	5.1
41+00	4.30	413.11	407.50	407.88	5.2

Restaked  
See P-13

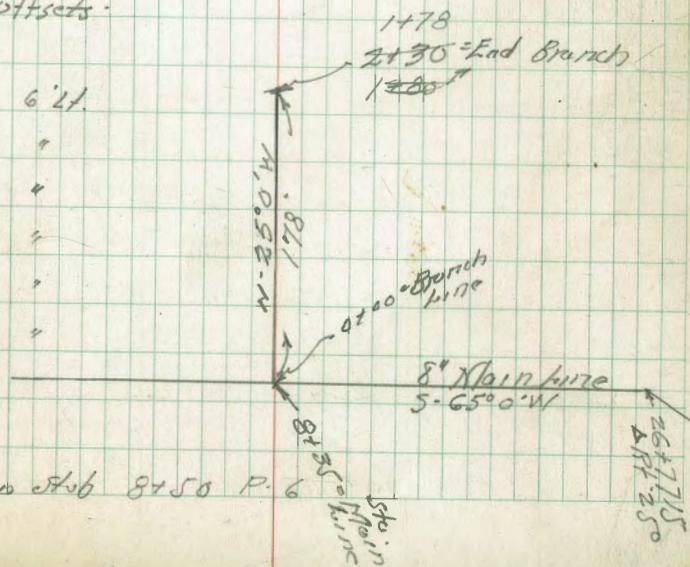
Restaked

417.91

Gibbs Airport - Grades  
8" Branch Water Main

Walker  
Johnson  
Ftk. Gregory  
Stanby  
7-4-48

Station	El.	Dist. Pipe	Cuts	Offsets
2+30 = End	5.52	399.86	396.26	3.6      6' 11"
2+00	5.69	399.69	395.87	3.8      "
1+50	5.84	399.54	395.22	4.3      "
1+00	6.54	398.84	394.57	4.3      "
0+50	7.55	397.83	393.92	3.9      "
0+06	8.19	397.19	393.24	3.8      "
0+00 = 8+35 Main Line			393.56	
chk 8+00 P. 6	8.48	396.91		
	7.83	405.38	397.53	



Walker  
Johnson  
F. Gregory  
B. Wright  
8-6-48

Gibbs Airport - Sewer Construction

Plan - Street 14, Profile - Street 17

El.  
Flow Pipe

12

Cuts      offsets

Waikeai → Gibbs Airport  
 Johnson 8" Water Main Grades  
 Pope Restake Portion  
 Pile  
 10-19-48 from 43+00 to 49+80

47+09.29 Torinvo "C" 1860-77 <sup>002</sup> 410.93  
 Check Conc. Port 4.89 410.95

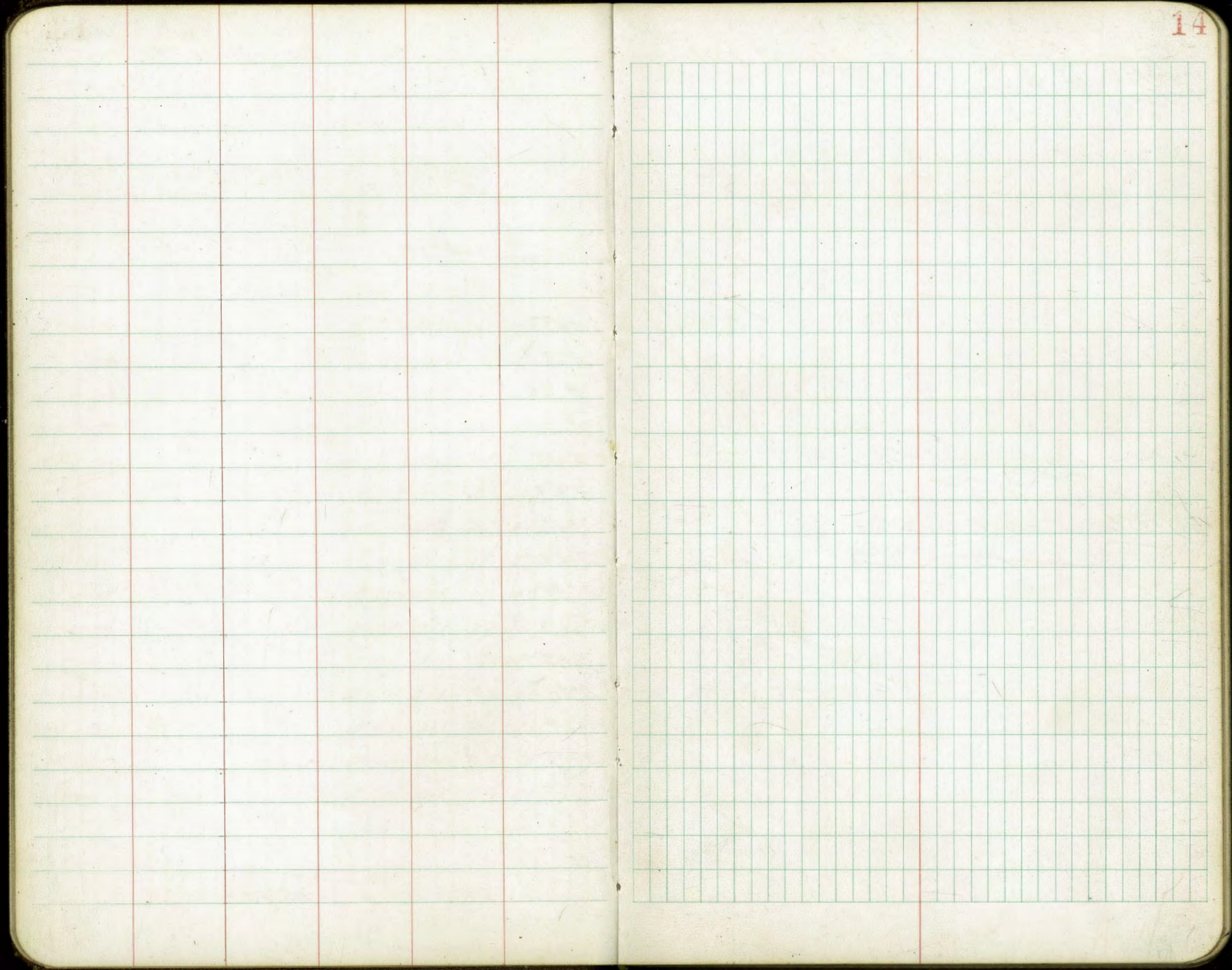
46+00 Runway "B" FB 1860-52 } covered with water Elev.  
 Check B.M. Conc. Port Bottom Trench

TR	8.83	415.84	2.66	407.01	Cuts.	offsets	
49+80			5.41	411.26	407.98	3.78	10' L
49+50			5.56	411.11	407.50	3.61	
49+00			5.99	410.68	407.58	3.16	
48+50			5.82	410.85	407.55	3.30	
48+00			6.14	410.53	407.58	2.95	
47+50			5.65	411.02	407.61	3.91	
47+00			5.91	410.76	407.64	3.12	
46+50			5.52	411.15	407.67	3.48	
46+00			5.62	411.05	407.70	3.35	
45+50			5.45	411.22	407.73	3.49	
45+00			5.09	411.58	407.76	3.82	
44+50			4.68	411.99	407.79	4.20	
44+00			4.81	411.86	407.82	4.04	
43+50			4.73	411.94	407.85	4.09	
43+00			4.84	411.83	407.88	3.95	

← Cont. P. 10 →

2.65 416.67 114.02

B.M. on slab Torinvo "C" 33450 60' B4 FB 1860-72

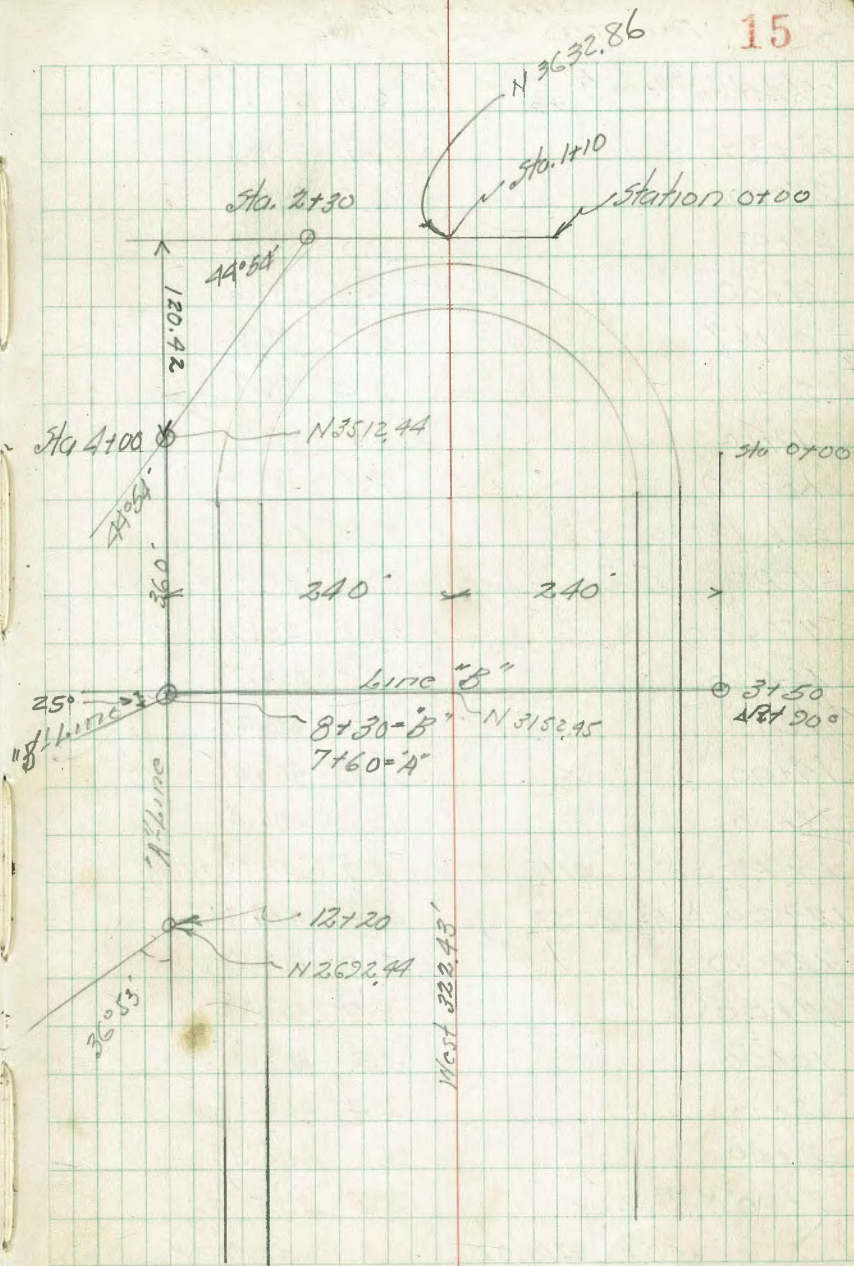
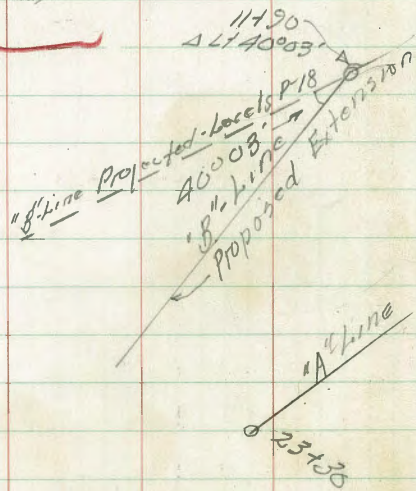




Walker Gibbs Airport - Preliminary  
 Johnson & Gregory  
 Stanley  
 8-9-48  
 Profile Levels for Portion  
 of Proposed Sewer

~~Abandon~~

Abandoned  
 in favor of location  
 as shown on page 21



Prelim. Levels - 9<sup>th</sup> Line  
From 7+60 to 23+80

Location P-15

16

			D. Error	
chk & stake 29+00	FB 1798 33	6.3	400.13 405.0	
23+30		11.4	394.9	
23+00		10.7	395.6	
22+00		9.0	397.3	
21+00	stop	8.7	397.6	
20+67		9.5	396.8	
20+00		9.6	396.7	
19+00		7.5	398.8	
18+00		7.1	399.2	
chk 12+20		0.6	405.8 405.7	
T.P. 5.2	406.3	10.2	401.1	
17+00		10.2	401.08	
16+00		8.5	402.78	
15+00		7.8	403.48	
14+00		5.2	406.08	
13+00		5.9	405.38	
T.P. 5.5	411.28	5.2	405.78	
12+20	Δ RZ 30°53	5.2	404.78	
12+00		4.9	406.08	
11+00		3.7	407.28	
10+00		3.3	407.68	
9+00		4.4	406.58	
8+00		5.2	405.78	
7+60 POT:		5.5	405.48	
	3.93 410.98		407.05	

Stake  
B.M. on 31+50 P. 9

Prelim. levels "B" Line

Location		P-15	
			397.1
chk Lake Access Road	25700	4.1	397.1 OK
		<del>8.4</del>	<del>393.2</del>
			395.8
T.P.	5.4	401.2	<del>395.8</del>
		402.2	<del>395.8</del>
		7.6	395.8
25+00		7.6	395.8
24+00		6.2	397.1 ✓
23+00	Low Point	7.2	396.2
22+00		5.5	397.9
T.P.	5.4	403.4	398.0
		404.4	399.0
		7.6	399.0
21+00		7.6	398.0
20+00		6.8	398.8
19+00		5.9	399.7
18+00		5.0	400.6
T.P.	5.5	405.6	400.1
		406.6	401.1
		8.2	401.1
17+00		8.2	400.1
16+00		7.4	400.9
15+00		6.3	402.0
14+00		6.2	402.1
13+00		5.5	402.8
T.P.	5.5	408.3	8.3 402.8
		409.3	7.3 403.8
			8.3
11+90	Δ Lt. 40°03'	7.3	402.8
11+00		7.4	403.7
10+00		5.9	405.2
9+00		5.6	405.5
8+30	Δ Lt 25°	5.6	405.5
	5.6	411.1	405.48

17

B.M. 7460 P-16

S. Levels

Projection "B" Line

Location P-15

18

CHK 8+30 P-17	2.7	405.6	
CHK		406.6	
27+50 Water line	3.0	405.8	-0.1 - 0.2 Error
		<del>406.3</del>	
17+00	3.7	404.6	
16+00	5.2	403.1	
15+00	6.6	401.7	
14+00	7.0	401.3	
13+00	6.4	401.9	
11+90	5.5	408.3	
		<del>409.3</del>	
		402.8	
		<del>403.8</del>	

Franky  
Allen  
Gregory 10-3-48

Profile levels  
"A" line

Station

= End "A" line

T.P. 6.05				
7+60 on stub	411.99	6.82	405.44'	
7+00		6.75	405.51'	
150		6.64	405.62'	
6+00		6.45	405.81'	
150		5.90	406.36'	
5+00		5.26	407.00'	
150		4.96	407.30'	
4+00		5.14	407.12'	
150		4.74	407.52'	
3+00		4.42	407.84'	
150		3.84	408.42'	
130 3 Pt.		3.62	408.64'	
2+00		3.46	408.80'	
150		3.83	408.43'	
1+00		3.70	408.56'	
150		2.92	409.34'	
0+00		2.37	409.89'	
T.P.	3.57	412.26	649	408.69'
	6.87	415.18'		408.31'

19

B.M. on E. Hub 22+00 Runway "B"

Walker  
Allen  
Stanby  
F. Gregory  
10-7-48

g Profile Levels  
"B" Line Sketch P-21

20

Station

Cont P-22

9+00	6.0	405.5
8+50	6.0	405.5
8+30 = A L. 25°	6.05	405.44
8+00	5.8	405.7
7+50	5.4	406.1
7+00	5.7	405.8
+50	5.4	406.1
6+00	5.3	406.2
+50	5.3	406.2
5+00	4.5	407.0
+50	3.9	407.6
4+00	3.1	408.4
3+50 = A L. 20°	2.5	409.0
3+00	2.4	409.1
+50	2.3	409.2
2+00	1.8	409.7
+50	1.7	409.8
1+00	2.0	409.5
+50	2.1	409.4
0+00	1.9	409.6

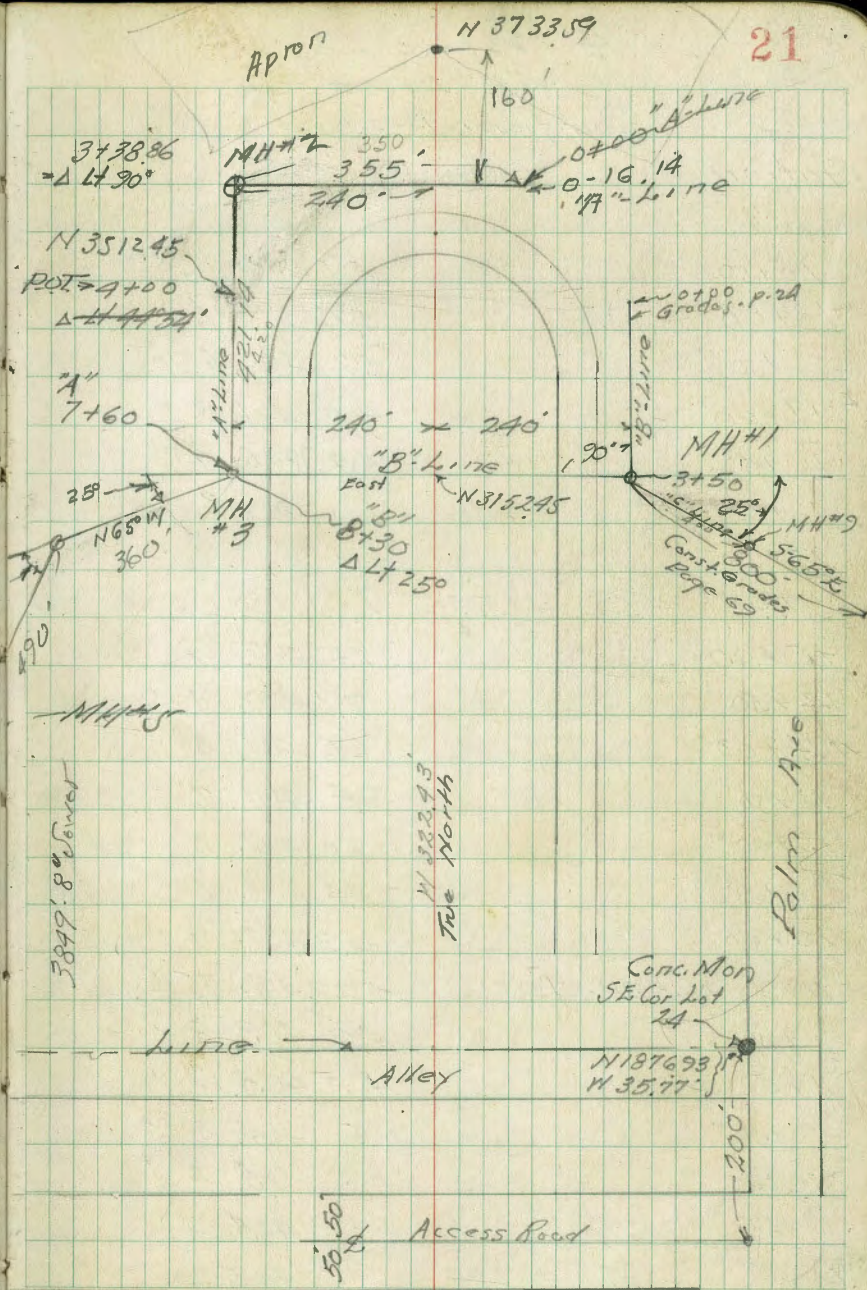
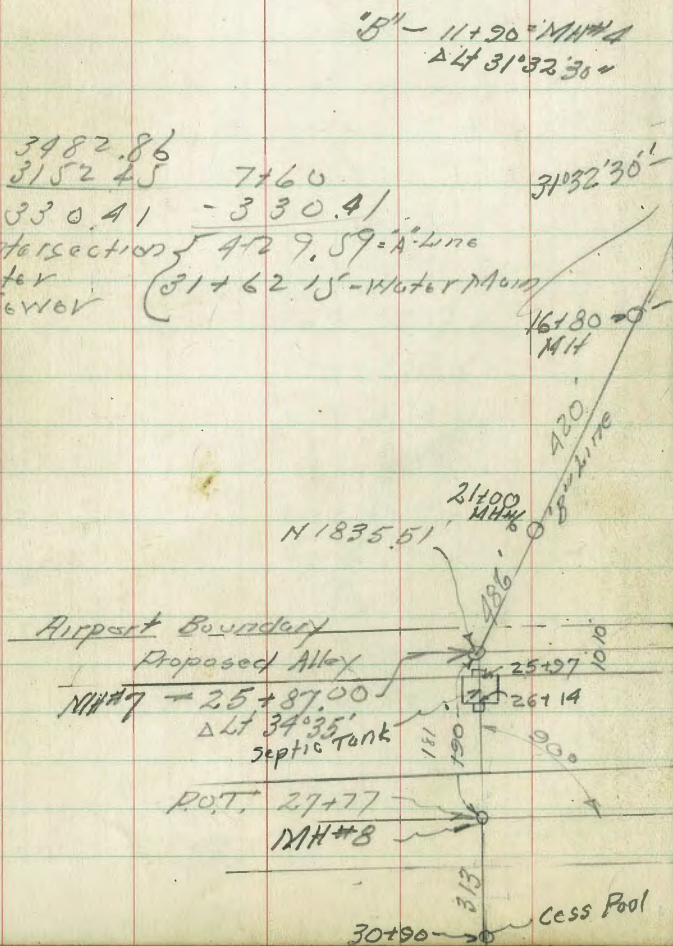
411.49

H.E. front  
P-19

Gibbs Airport  
Proposed Sewer Location

Walker  
Allan  
Bromby  
F Gregory  
10-7-48

3482.86  
3152.45 7+60  
330.41 - 330.41  
Intersection of 4+29.59 = A-Line  
Water & Sewer (31+62.15 = Water Main)



Profile Levels  
"B" Line  
Cont. from P-20

Station

18+50		5.1	400.2	
18+00		5.7	399.6	
+50		4.7	400.6	
17+00		4.0	401.3	
16+50		4.4	400.9	
16+00		5.0	400.3	
15+50		4.4	400.9	
T.P.	4.62	405.30	7.29	400.68
15+00		7.29	400.68	
14+50		7.1	400.9	
14+00		6.6	401.4	
13+50		6.4	401.6	
13+00		6.0	402.0	
+50		5.4	402.6	
12+00		5.3	402.7	
11+50	Δ Lt. 31° 32' 30"	5.22	402.75	
+50		4.7	403.3	
11+00		4.3	403.7	
10+50		3.5	404.5	
10+00		2.8	405.2	
9+50		2.6	405.4	
T.B.M.	263	407.97	6.15	405.34
		411.49		

Cont. P-23

22

Stake	5" Line	Cont. from opp Page	
chk Stake 22+00	3.06	396.03	0.02 Error
- POT	3.21	395.86	
27+77 = Access Road	3.18	395.89	on stake
+58	3.3	395.8	
+46	5.9	393.2	
27+00	5.7	393.4	
26+50	4.7	394.4	
T.P. 362	399.07	8.04	395.45
25+87 = Δ Lt. 34° 35'	8.04	395.45	on stake
+50	6.8	396.7	
25+00	5.9	397.6	
+50	5.7	397.8	
24+00	5.1	398.4	
+50	4.8	398.7	
23+00	4.7	398.8	
+50	5.0	398.5	
22+00	4.7	398.8	
+50	4.8	398.7	
21+00	4.3	399.2	
T.P. 437	403.49	6.18	399.12
20+50	6.2	399.1	
20+00	5.8	399.5	
19+50	6.1	399.2	
19+00	5.3	400.0	

40530



Profile Levels  
"B" Line (cont)

1.65

23

			1.66	395.90	Hub 2777
115 Bottom Creek Bed			12.3	385.3	
31+00			11.8	385.8	
+75			11.3	386.3	
T.P.	5.89	397.56	6.81	391.67	
+35			9.2	389.3	
30+00			6.4	392.1	
+50			5.5	393.0	
29+00			5.8	392.7	
+50			5.8	392.7	
28+10			5.8	392.7	
27+97			2.7	395.8	
T.P.	2.59	398.48	3.18	395.89	on 8046 2777

Walker  
Schiffers  
Allen  
Branby  
10-15-48

Gibbs Airport - JEWEL GRADES

For "B" Line as per locations  
on Page 31

Cont P. 25	El.	Flowline	Cuts	offset	
6+30	5.12	406.18	401.24	4.94 ✓	10' RT
5+95	5.21	406.09	401.42	4.67 ✓	"
5+60	5.03	406.27	401.60	4.67 ✓	"
5+25	4.82	406.48	401.78	4.70 ✓	"
4+90	4.65	407.25	401.96	5.29 ✓	"
+85'	3.77	407.53	402.14	5.39 ✓	"
4+20	3.19	408.11	402.33	5.78 ✓	"
3+85	2.38	408.92	402.51	6.41 ✓	"
3+60	2.40	408.90	402.64	6.26 ✓	"
3+50 $\Delta RT 90^\circ$ - MH #1	2.40	408.90	402.69	6.21 ✓	5' SET 3' KE
3+40	2.40	408.90	402.74	6.16 ✓	"
3+15	2.25	409.05	402.87	6.19 ✓	"
+80	2.07	409.23	403.05	6.18 ✓	"
+45	2.31	408.99	403.23	5.76 ✓	"
2+10	2.00	409.30	403.41	5.89 ✓	"
+75	1.67	409.63	403.60	6.03 ✓	"
+40	1.76	409.54	403.78	5.76 ✓	"
1+05	1.99	409.31	403.97	5.34 ✓	"
+70	1.90	409.40	404.15	5.25 ✓	"
+35	2.02	409.29	404.34	4.94 ✓	"
0+00	1.68	409.62	404.52	5.10 ✓	"
5.86	411.30	405.44			

This portion  
Reset - See P. 37

this Portion  
Reset -  
See P-39

B.M. on Stake 7+60 P. 19

Gibbs Airport - Sewer Grades  
 "B" line - Cont. from P. 24

Station	Flow Line			
13+15	→ Cont. P. 29	383	402.79	397.68
12+80		4.56	402.06	397.86
12+45		4.11	402.51	398.04
12+10		3.96	402.66	398.23
11+90	orig. stake		402.75	P. 22
T.P.	3.89	406.62	8.57	402.73
11+90 MH #2	} ΔH 31°32'30"	8.73	402.57	398.33
11+90 MH		8.69	402.61	398.33
11+75		8.38	402.92	398.40
11+40		7.92	403.38	398.58
11+05		7.81	403.49	398.76
10+70		7.10	404.20	398.94
10+35		6.67	404.63	399.13
10+00		6.27	405.03	399.31
9+65		6.01	405.29	399.50
9+30		6.03	405.27	399.68
8+95		5.82	405.48	399.86
8+60		6.05	405.25	400.04
8+30	MH #3 ΔH 25'	5.83	405.47	400.20
8+00		5.58	405.72	400.35
7+70		5.31	405.99	400.51
+25		5.23	406.07	400.69
7+00		5.22	406.08	400.87
6+65		5.12	406.18	401.05
Cont. from P. 24			411.30	

Cuts
5.11 ✓
4.20 ✓
4.47 ✓
4.43 ✓
4.24 ✓
4.28 ✓
4.52 ✓
4.80 ✓
4.73 ✓
5.26 ✓
5.50 ✓
5.72 ✓
5.79 ✓
5.59 ✓
5.62 ✓
5.21 ✓
5.27 ✓
5.37 ✓
5.48 ✓
5.38 ✓
5.21 ✓
5.19 ✓

10.24' H on Bisector

Gibbs Airport - Sewer Grades  
"B" Line

21+90	4.71	399.10	393.14
+85	4.79	399.02	393.32
21+20	4.61	399.20	393.50
21+00 - MH # 6	4.66	399.15	393.60
+85	4.66	399.15	393.67
+80	4.76	399.05	393.85
20+15	4.27	399.54	394.03
+80	4.31	399.50	394.22
+45	4.60	399.21	394.40
19+10	4.40	399.41	394.58
+75	3.73	400.08	394.76
+40	3.68	400.13	394.94
18+05	4.11	399.70	395.12
+70	3.31	400.50	395.31
17+35	3.21	400.60	395.49
17+00	2.61	401.20	395.68
16+80 - MH	2.91	400.90	395.78

5.96'
5.70'
5.70'
5.55'
5.48'
5.20'
5.51'
5.28'
4.81'
4.83'
5.32'
5.19'
4.58'
5.19'
5.11'
5.52'
5.12'

810 on E. Stake 25+87 P 22

16+65	836	403.81	395.45
16+30			5.71
15+95			6.18
+60			6.37
15+25	} see P-29		6.34
14+90			6.73
14+55			6.02
14+20			5.79
13+85			5.07
13+50			5.39
	406.62	474	

44. 17+00	5.51	401.20
44. 16+80	5.80	400.82

406.62

Gibbs Airport - Sewer Grades

Station

"B" Line

El. Flow Line

Cuts

Offsets

27

27+85	4.89	395.80	387.35
Check E 27+77	4.80	395.89	P-23 387.44
27+77 = MH # Access Road	4.76	395.93	390.09 387.74
+50	6.73	393.96	390.53 388.14
27+15	7.37	393.32	390.41 388.49
26+80	6.80	393.89	390.37 388.86
26+45	6.28	394.41	390.77 389.20
26+14 = See P. 44	5.69	395.00	390.96 25+87 391.03
T.P. 52A 400.69	8.36	395.45	391.03 or 2.56 to
25+97 → See P. 44	8.35	395.46	391.08
25+87 MH # 7	8.27	395.54	391.08
25+87 = Δ 44 34° 25'	7.96	395.85	391.14
+75	7.10	396.71	391.32
+40	6.66	397.15	391.50
25+05	6.35	397.46	391.69
+70	5.77	398.04	391.87
+35	5.46	398.35	392.05
24+00	5.08	398.73	392.23
+65	4.83	398.99	392.41
23+30	5.13	398.68	392.59
+95	5.18	398.63	392.77
+60	4.87	398.94	392.96
22+25			

403.81

C 8.45			
Cuts			
C 5.84	8.49	10' RT	
C 3.73	6.22		
C 2.91	5.21		
3.80	5.40		
3.64	5.55		
4.04			
4.38	10' RT	at Pt A to Forward Tan.	
4.46	10' RT	" " " " Buck Tan.	
4.71			
5.39			
5.65			
5.77			
6.17			
6.30			
6.50			
6.57			
6.09			
5.86			
5.98			

Gibbs Airport  
SEWER Grades "B" Line

			Fl. Flow Line	Cuts	offsets	
30+90	on ground Bottom Canyon	149	<del>385.68</del> 385.8	384.07	1.61	
30+65		11.87	388.82	384.35	4.47	10' Rt
30+50		10.32	390.37	384.51	5.86	
30+30		10.02	390.67	384.73	5.94	
29+95		8.67	392.02	385.10	6.92	
29+60		8.10	392.59	385.48	7.11	
29+25		8.69	392.00	385.85	6.15	
28+90		7.78	392.91	386.23	6.68	
28+55		8.02	392.67	386.60	6.07	
28+20		7.89	392.80	386.98	6.82	5.82

400.69

Gibbs Airport  
8" LINE SEWER GRADES

El.  
Flow line

Cuts

Cont. on P-26

16+80=17H#5	5.80	400.80	395.78
16+65	5.71	400.91	395.85
16+30	6.18	400.44	396.03
15+95	6.37	400.25	396.21
15+60	6.34	400.28	396.40
15+25	6.13	400.49	396.58
14+90	6.02	400.60	396.76
14+55	5.79	400.83	396.95
14+20	5.07	401.55	397.13
13+85	5.39	401.23	397.31
13+50	4.74	401.88	397.50

C 5.12 to South  
6.504 to North

5.96

4.71

4.04

3.88

3.91

3.84

3.88

4.42

3.92

4.38

Cont. from P-26

406.62

π from P-26

## Gibbs Airport - Grades for Concrete

Culvert South of Runway "A" and "B"

Station	Elev.		Flow line	Cuts	Offsets	
114+50	5.58	405.15	399.94	5.21	10 Lt.	
114+25	5.54	405.19	399.88	5.31	"	
114+00	5.62	405.11	399.82	5.29	"	
113+75	4.85	405.88	399.75	6.13	"	
113+50	4.97	405.76	399.69	6.07	"	
113+25	4.46	406.27	399.63	6.64	"	
113+00	4.32	406.41	399.57	6.84	"	
112+75	4.32	406.41	399.50	6.91	"	
112+50	4.47	406.26	399.44	6.82	"	
112+25	4.57	406.16	399.38	6.78	"	
			399.32	6.78	"	40612 = Stake
112+00 Catch Basin	4.63	406.10	399.07	7.03	"	40350 = Top Inlet.
					"	C 2.62 = Top "
111+75	4.67	406.06	399.00	7.06	"	
111+50	4.76	405.97	398.94	7.08	"	C 621 = Reset
111+25	4.93	405.80	398.88	6.92	"	
111+00	5.04	405.69	398.82	6.87	"	
110+75	5.11	405.62	398.76	6.86	"	
110+50	5.21	405.52	398.70	6.82	"	
110+25	5.27	405.46	398.63	6.81	"	
110+00	5.25	405.48	398.57	6.91	"	
109+75	5.45	405.28	398.50	6.78	"	
109+50	5.60	405.13	398.44	6.69	"	
109+25	5.52	405.21	398.38	6.83	"	
					"	
	5.41	410.78	405.32	8.11	"	



Gibbs Airport Culvert South  
of Runways

			Flow	Flow	Cuts	offsets	
			Rate	Time			
120+25		3.31	407.76	401.38	6.38'	10' Lt.	
120+00		3.44	407.63	401.32	6.31'	'	
119+75		3.45	407.62	401.25	6.37'	'	
119+50		3.56	407.51	401.19	6.32'	'	
119+25		3.55	407.52	401.13	6.39'	'	
119+00		3.72	407.35	401.07	6.28'	'	
118+75		3.77	407.30	401.00	6.30'	'	
118+50		3.90	407.17	400.94	6.23'	'	
118+25		4.00	407.07	400.88	6.19'	'	
118+00		3.98	407.09	400.82	6.27'	'	
117+75		4.23	406.84	400.75	6.09'	'	
117+50		4.25	406.82	400.69	6.13'	'	
117+25		4.40	406.67	400.63	6.04'	'	
117+00		4.54	406.53	400.57	5.96'	'	
116+75	Catch Basin	4.66	406.41	400.51	5.90'	'	404.50 = E. Top Inlet
116+50		4.96	406.11	400.44	5.67'	'	
116+25		5.03	406.04	400.38	5.66'	'	
116+00		5.21	405.86	400.32	5.51'	'	
115+75	Catch Basin	5.26	405.81	400.25	5.56'	'	
115+50		5.43	405.64	400.19	5.45'	'	
115+25		5.47	405.60	400.13	5.47'	'	
115+00		5.70	405.37	400.07	5.30'	'	
114+75		5.87	405.20	400.00	5.30'	'	
T.P.		5.95	411.07	5.61 405.12 on stab.			

410.73

Current - Grades  
Cont. from P. 31

			Elev. Flow Line	Cuts	offsets	
125+67.3		4.95	409.90	403.33	6.57' 10' ht.	
125+42.3		4.97	409.88	403.24	6.64' "	
125+17.3		4.97	409.88	403.16	6.72' "	
124+92.3		5.00	409.85	403.08	6.77' "	
124+67.3		4.99	409.86	403.00	6.86' "	
124+42.3		4.85	410.00	402.91	7.09' "	
124+17.3		4.70	410.15	402.83	7.32' "	
123+92.3		4.80	410.05	402.75	7.30' "	
123+67.3		4.93	409.92	402.67	7.25' "	
123+42.3		5.12	409.73	402.58	7.15' "	
123+17.3		5.17	409.68	402.50	7.18' "	
122+92.3		5.35	409.50	402.42	7.08' "	
122+67.3		5.66	409.19	402.34	6.85' "	
122+42.3		5.97	408.88	402.25	6.63' "	
122+17.3		6.20	408.65	402.17	6.48' "	
121+92.3		6.29	408.56	402.09	6.47' "	
121+67.3		6.23	408.62	402.01	6.61' "	
121+50	Rt 17' 14" Catch Basin			401.95	6.66' "	
			6.29	408.61	401.70	6.91' " Rt A to Forward Turn
					401.95	6.60' "
121+50		6.30	408.53	401.70	6.85' " Rt A to " " Back "	
121+25		6.54	408.31	401.63	6.70' 10' ht.	
121+00		6.56	408.29	401.57	6.72' "	
120+75		6.69	408.16	401.50	6.66' "	
T.P.	6.69	414.85	2.21	408.16		
120+50		2.13	407.94	401.44	6.50' "	

411.07

E1  
Inlet  
top = 405.70

Cutvert Grades  
Cont. from P-32

			Elev.	Flowline
29+50		5.19	411.84	405.39
29+25		5.69	411.34	405.30
29+00		5.74	411.29	405.21
28+75		5.79	411.24	405.13
28+50		5.70	411.33	405.05
28+25		5.58	411.45	404.97
28+00		5.19	411.84	404.88
27+75		5.39	411.64	404.80
27+50		5.27	411.76	404.72
27+25		5.66	411.37	404.64
27+00		5.58	411.45	404.55
26+75		5.49	411.54	404.47
26+50		5.21	411.82	404.39
26+25		5.72	411.31	404.31
26+00		5.86	411.17	404.22
25+75		5.77	411.26	404.14
25+50		6.16	410.87	404.06
T.P.				
= 25+25	} ART 3240 Cutvert Bas 17	6.45	417.03	427 410.58
126+92.3				403.98
= 25+25				403.73
126+92.3				403.98
		4.25	410.60	403.73
126+67.3		3.86	410.99	403.66
126+42.3		4.05	410.80	403.57
126+17.3		4.49	410.36	403.49
125+92.3		4.80	410.05	403.41

414.85

Cuts	Offsets
6.45	10' Lt.
6.04	"
6.09	"
6.11	"
6.28	"
6.48	"
6.96	"
6.84	6.83"
7.04	6.88"
6.73	6.70"
6.90	6.89"
7.07	7.07"
7.43	7.49"
7.00	6.96"
6.95	6.82"
7.12	7.11"
6.81	6.75"
6.60	
6.85	Rt to Forward Turn
6.62	
6.87	Rt to Back Turn
7.33	10' Lt.
7.23	"
6.87	"
6.64	"

Restaked for New Cuts  
See P-35

51 Top Inlet  
= 408.79

Culvert Grades  
Cont. from P. 33

Station		Elev.	Flowline	Cuts	offsets
Cont. on P-49					
34+00 on stub					
T.P.	3.67	414.36			
chk 34+00 250'R F81860-17	3.66	414.37	✓		
34+00	3.67	414.36	407.11	7.25'	10' LH
33+75	4.15	413.88	407.03	6.85'	"
33+50	4.24	413.79	406.95	6.84'	"
33+25	4.64	413.39	406.86	6.53'	"
33+00	4.88	413.15	406.78	6.37'	"
32+75	4.82	413.21	406.70	6.51'	✓
32+50	5.14	412.89	406.62	6.27'	✓
32+25	5.22	412.81	406.53	6.38'	✓
T.P.	5.40	418.03	440 412.63		
32+00	4.40	412.63	406.45	6.18'	✓
31+75	3.72	413.31	406.37	6.24'	✓
31+50	4.78	412.25	406.29	5.96'	✓
31+25	4.80	412.23	406.20	6.03'	✓
31+00	4.62	412.41	406.12	6.29'	✓
30+75	4.53	412.50	406.04	6.46'	✓
30+50	5.10	411.93	405.96	5.97'	✓
30+50 catch basin			405.71	6.22'	✓
30+25	4.99	412.04	405.62	6.42'	✓
30+00	5.77	411.26	405.54	5.72'	✓
29+75	4.92	412.61	405.46	7.15'	✓

417.03

410.50 = Bl. Top Inlet

Walker Gibbs Report - Culvert Grades  
 Allen  
 Branby Re set stakes from 25+75  
 F. Gray to 29+25  
 10-7-48

El.  
 Flowline

Cuts

29+25	5.41	411.33	405.30	6.03
29+00	5.51	411.23	405.21	6.02
+75	5.51	411.23	405.13	6.10
+50	5.49	411.24	405.05	6.19
+25	5.31	411.43	404.97	6.46
28+00	4.91	411.83	404.88	6.95
+75	5.18	411.56	404.80	6.76
+50	5.18	411.56	404.72	6.84
+25	5.33	411.41	404.64	6.77
27+00	5.30	411.44	404.55	6.89
+75	5.20	411.54	404.47	7.07
+50	4.86	411.88	404.39	7.49
+25	5.47	411.27	404.31	6.96
26+00	5.70	411.04	404.22	6.82
25+75	5.50	411.24	404.14	7.10
6.16	416.74	410.58		

Gibbs Airport  
 SEWER GRADES - for "A" Line  
 Location P-21

El.  
 Flow Line

Cuts

1725



Cont  
 P-58



0+90 3.28 409.27 403.74

758 4.02 408.53 403.92

0+20 3.48 409.07 404.10

0-16.14 - Beg. Sewer 3.14 409.41 404.28

711 413.55 405.44

5.53'

4.61'

4.97'

5.13'

B.M. on E. Stub 7+60 P-29

## Gibbs Airport

Walker Johnson  
Brent  
10-27-48Reset Portions "B" Line  
(on account of Blasting operations)Elev.  
Flow Line

Cuts. offsets.

7+00	716	406.01	405.87	5.14
6+65	706	406.11	401.05	5.06
6+30	701	406.16	401.24	4.92
5+95	709	406.08	401.42	4.66
5+60	689	406.28	401.60	4.68
5+25	668	406.49	401.78	4.71
4+90	591	407.26	401.96	5.30
4+55	561	407.56	402.14	5.42
4+20	502	408.15	402.33	5.82
3+85	420	408.97	402.51	6.46
3+60	425	408.92	402.64	6.28
3+50	425	408.92	402.69	6.23
3+40	425	408.92	402.74	6.18
4.12.	413.17	409.05		

"A" Line	El. Stakes	El. Flow Line
7+60 = 8+90 "B" line	7.09 405.46	400.20
7+50	7.23 405.32	400.25
7+25	7.15 405.40	400.38
6+90	7.15 405.40	400.63
6+55	7.04 405.51	400.81
6+20	6.63 405.92	401.00
5+85	6.79 405.76	401.18
5+50	6.34 406.21	401.36
5+15	5.96 406.59	401.54
4+80	5.34 407.21	401.72
4+45	5.26 407.22	401.91
4+10	5.40 407.15	402.09
3+75	5.49 407.06	402.27
3+38.86 (MH)	5.64 406.91	402.46
3+38.86	5.10 407.45	402.46
3+00	4.97 407.58	402.66
2+65	4.51 408.04	402.84
2+30	4.20 408.35	403.02
1+95	4.00 408.55	403.20
1+60	4.47 408.08	403.38
1+25	4.34 408.21	403.56
Cont from P-36	412.55	103.74
	X from P-36	

Cuts

5.26'	102' Lt. on Bisector
5.07' ✓	
5.02' ✓	
4.77' ✓	
4.70' ✓	
4.92' ✓	
4.58' ✓	
4.85' ✓	
5.05' ✓	
5.49' ✓	
5.38' ✓	
5.06' ✓	
4.79' ✓	
4.45' ✓	RT Δ to Forward Turn
4.99' ✓	RT Δ to Back Turn
4.92' ✓	
5.20' ✓	
5.33' ✓	
5.35' ✓	
4.70' ✓	
4.65' ✓	



Gibbs Airport  
Reset Portion "B" Line

Fl.  
Flow Line

3+40	5.17	408.93	402.74
3+15	5.02	409.08	402.87
+80	4.73	409.37	403.05
+45	5.09	409.01	403.23
2+10	4.79	409.36	403.41
+75	4.41	409.69	403.66
+40	4.49	409.61	403.78
1+05	4.77	409.33	403.97
+70	4.68	409.42	404.15
+35	4.76	409.34	404.34
0+00	4.48	409.62	404.52
	8.10	406.00	check
8.03	414.10	406.07	B.M.

39

cut

6.19 See P.37

6.21 ✓

6.32 ✓

5.78 ✓

5.95 ✓

6.09 ✓

5.83 ✓

5.36 ✓

5.27 ✓

5.00 ✓

5.10 ✓

Sta. 7+00 "B" line P.37

Sta. 7+35 "B" line

P-24  
This Book

Grades - Cable Line - Location

25+64 - Between "B" Runway

And "C" Taxiway

Mulker  
Johnson  
Pope  
R. J.  
12-1-48

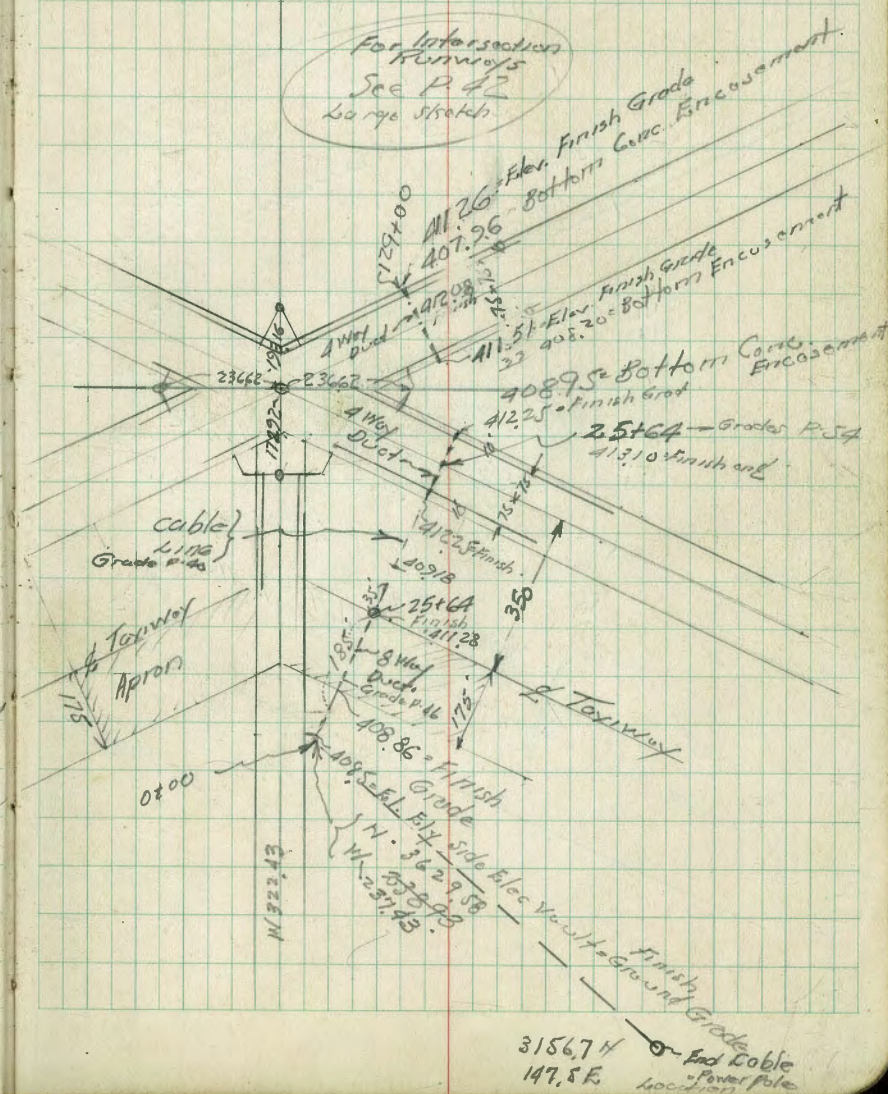
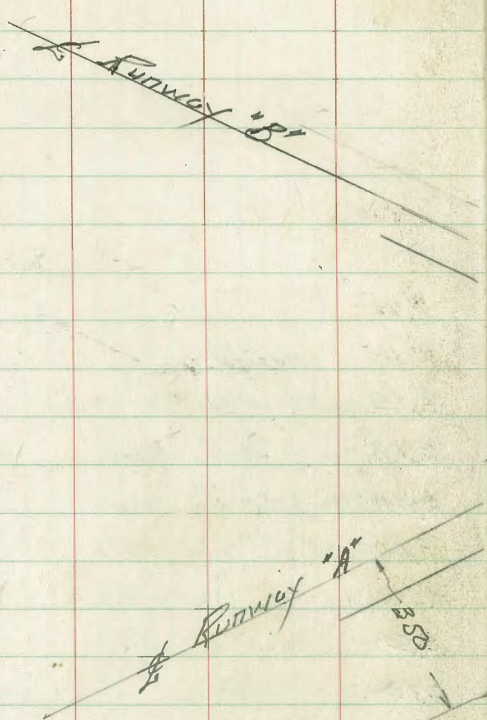
				Cuts	Offsets
2+30=End	3.20	411.34	408.5	2.84'	4' LH
1+97.5	3.62	410.72	407.75	3.17'	"
1+65=Brk.	4.92	407.62	407.00	2.62'	"
1+20	3.79	410.75	407.75	3.00'	"
0+80	3.20	411.34	408.50	2.84'	"
0+40	2.75	411.79	409.25	2.54'	"
0+00=85' Pt of S. Runway of "B"	2.2'	412.83'	410.0	2.33'	"

3.28 414.54 411.26

B.M. #3

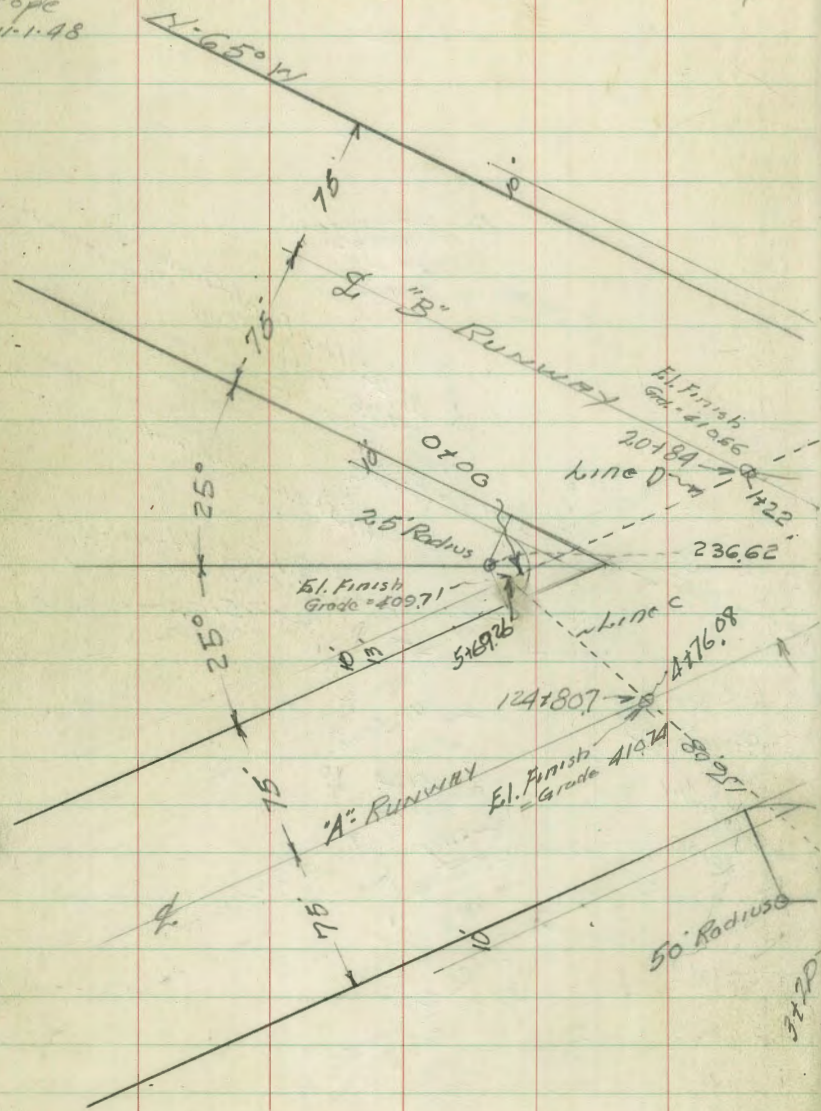
Walker  
Johnson  
Pope  
R. W.  
10-25-48

Locations Elec. Ducts  
Gibbs Airport

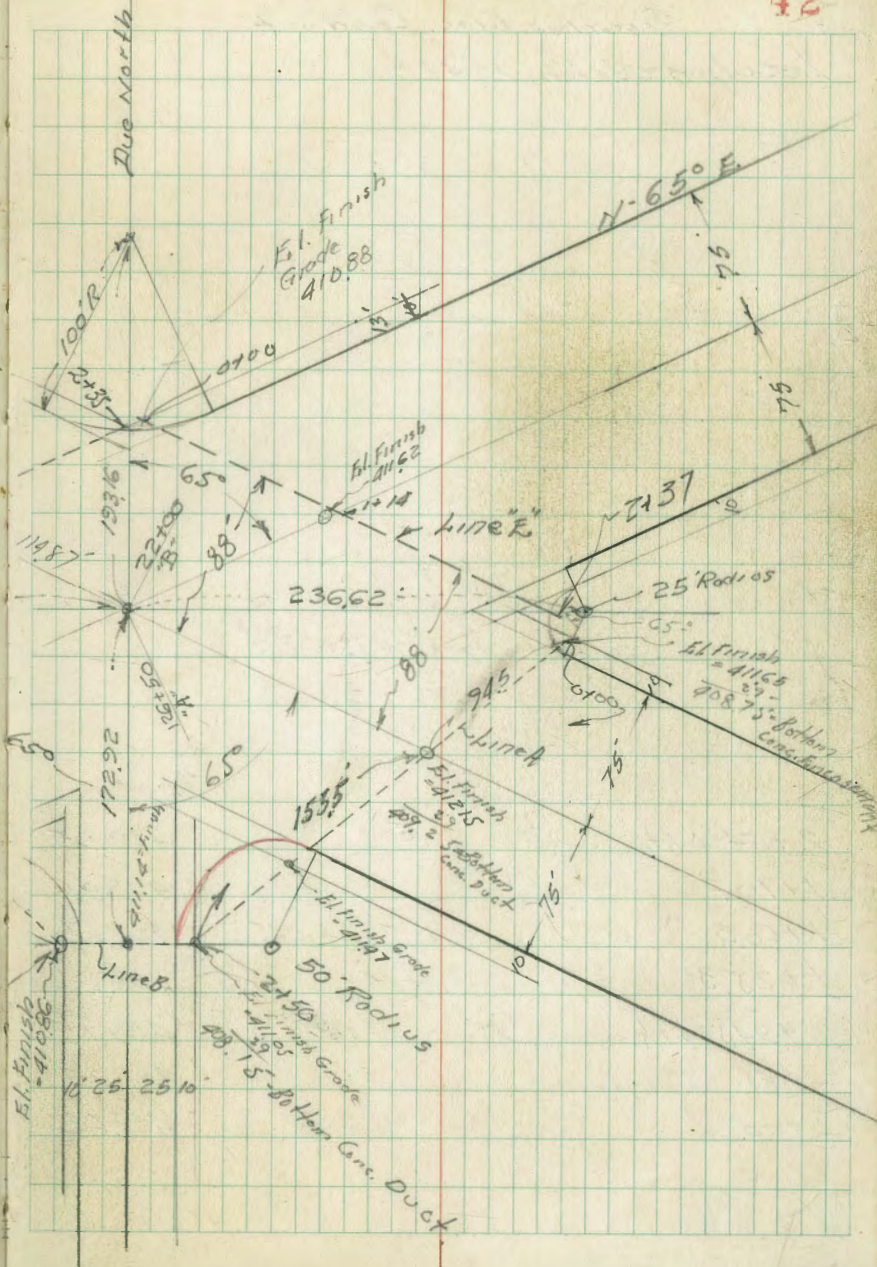


Walker  
Johnson  
Spanby  
Pope  
11-1-48

Location Elec. Conduits  
at Intersection "A" & "B" Runways



Gibbs Airport



Gibbs Report

Graded Elec. Conduit

Location - Sketch P-42

43

2+54-ARL	408.05
1+90.3	408.46
1+60.3	408.67
1+25.3	408.91
0+94.5-Brk	409.15
145	408.89
0+00	408.63

Gibbs Airport Sewer Grades  
 "B" Line  
 from 25+87 P. 27

(See Revised Sketch P-51)

			EI. Flow
26+14 outlet Septic Tank	5.30	394.28	389.20
25+27 Inlet Septic Tank	4.98	395.30	391.03

"C" 26+14 East Edge Septic Tank	5.24	395.04	393.64
"D" 26+14 South Edge Septic Tank	5.30	394.98	393.64
"A" 25+27 N edge Septic Tank	4.98	395.30	393.64
"B" 25+27 E Edge "	4.89	395.32	393.64

4.82 400.28 395.46

39103  
 261  
 393.64

Cuts

5.78

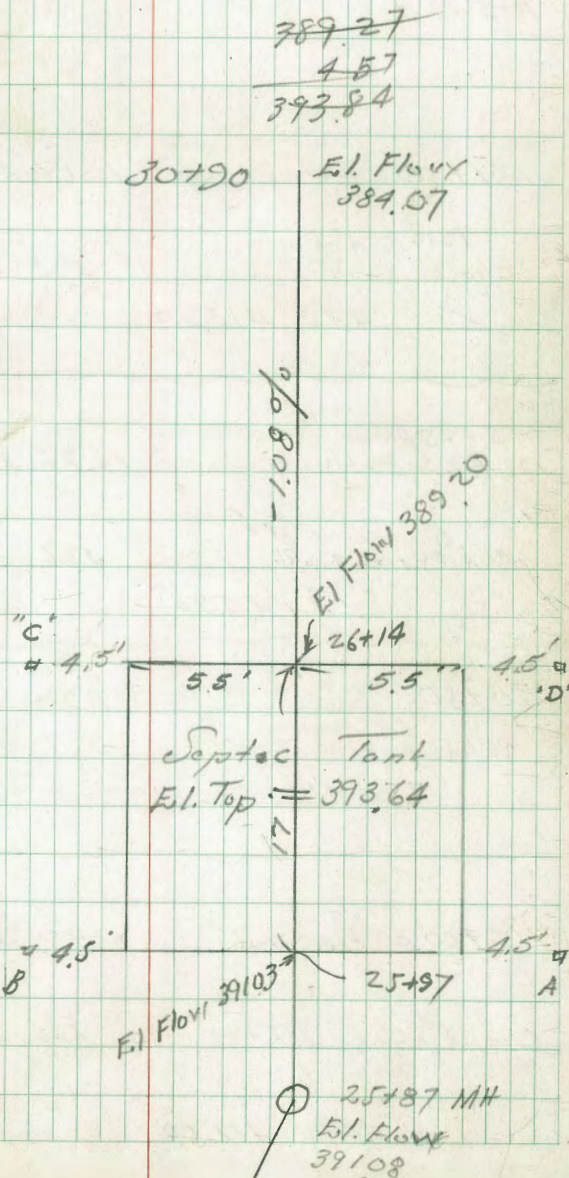
4.27

C 1.40

C 1.34

C 1.66

C 1.75



Walker — Gibbs Airport —  
 Johnsons  
 Grades Culvert Inlets  
 Branby  
 Pope  
 10-5-48

Elev.  
 Top Inlets

131+50 #194 10.17 403.73 405.70

121+50 "A" Runway  
 Check 5.05 408.85  
 4.76 413.20 409.14

25+25 Ahead #3  
 126+92.3 - Back 10.26 405.68 408.72

Runway "B"  
 Chk 24+00 200' Rt 5.66 410.28  
 6.13 415.94 409.81

30+50 #2 8.28 407.55 410.50  
 "B" Runway  
 Chk 30+00 200' Rt 4.61 411.22  
 4.41 416.53 412.12

#6  
 112+00 on Pipe - West 9.99 401.59 403.50

Check Stake 112+00 P-70 5.46 406.12  
 4.41 411.58 407.17

45

F 1.97 - Top of Inlet  
 Grade Set on Top of Pipe  
 End from West

B.M. on Stake 122+00 150' Rt

F 3.11 To Top of Inlet  
 Grade Mark on End of Pipe  
 from West

B.M. 24+00 "B" Runway 200' Rt  
 FB 1860-14

F 2.95 - Top Inlet  
 Grade Mark Set  
 on End of Pipe  
 from West

B.M. 30+50 200' Rt. FB 1860-16

F 1.91 - To Top Inlet.

B.M. on Stake 112+50 150' Rt  
 FB 1860-23

Gibbs Airport

~~Getvert~~ ~~trials~~ Elev Duct

Walker  
Johnson  
Pope  
Riley  
12-10-48

8 Way at sta 25+64 Taxiway C  
Location sketch P-41

392 415.14 411.22

FB2001-24 410.42

Chk Stake 25100-2534 5.59 410.43

Elev. Bottom  
Cont. Encasement

Station	Elev	Bottom	Cont. Encasement
2+69 = Fly End, V <sup>o</sup> 11	4.59	408.57	407.00
T.P. 2+20	4.31	413.16	7.17 408.85 404.42
1+85	7.21	408.81	404.89
1+60	6.98	409.04	405.22
1+10	6.14	409.88	405.89
0+60	5.40	410.62	406.56
0+35 = Bk Taxiway C	5.00	411.02	406.90
0+00	4.80	411.22	406.60

4.76 416.02 411.26

on Account of Blasting  
Reset Portion 8 Way Duct.

Station	Elev	Bottom	Cont. Encasement	Cuts
1+85	6.93	408.81	404.89	
1+60	6.05	409.09	405.22	3.87
1+10	5.17	409.97	405.89	4.08
0+60	4.36	410.78	406.56	4.22
0+35	4.15	411.00	406.90	4.10
392	415.14	411.22		

Cuts	Offsets
1.57	
4.43	4' 4"
3.72	11.0
3.82	10.75
3.99	10.9
4.06	10.5
4.12	
4.62	
8.11	4.3



Walker  
Johnson  
Bryant  
Pope  
10-7-48

Gibbs Airport

Grades 24" Conc. Curb

Location as per Sketch.

Station	Flow Line	El.	Flow Line	El.
25+75	5.37	411.49	407.42	
+50	5.25	411.61	407.33	
+25	5.57	411.29	407.24	
25+00	5.44	411.42	407.16	
775	4.71	412.15	407.07	
+50	See P-48	4.57	413.29	406.98
+25	" "	4.71	412.15	406.89
24+00	4.25	411.91	406.80	
+75	5.07	411.72	406.71	
+50	5.49	411.37	406.62	
23+25	5.52	411.34	406.53	
23+10	5.61	411.25	406.48	
22+75	6.36	410.50	406.36	
22+50	6.70	410.16	406.28	
22+25	7.19	409.67	406.19	
22+00	6.74	409.92	406.10	
21+75	7.25	409.61	406.01	
21+50	7.84	409.02	405.92	
21+25	7.99	408.87	405.84	
21+00	7.28	408.88	405.75	
20+82.92	9.09	407.77	405.69	
Sta 127+22.41	8.28	407.33	407.37	
Sta 127+22.41	8.28	407.33	407.33	
6.05	416.86	410.81	23100.8	

Slope Sta to Runway

FB 1993-2

6.05 416.86

Runway

FB 1993-2

8.28 407.33

Runway

FB 1993-2

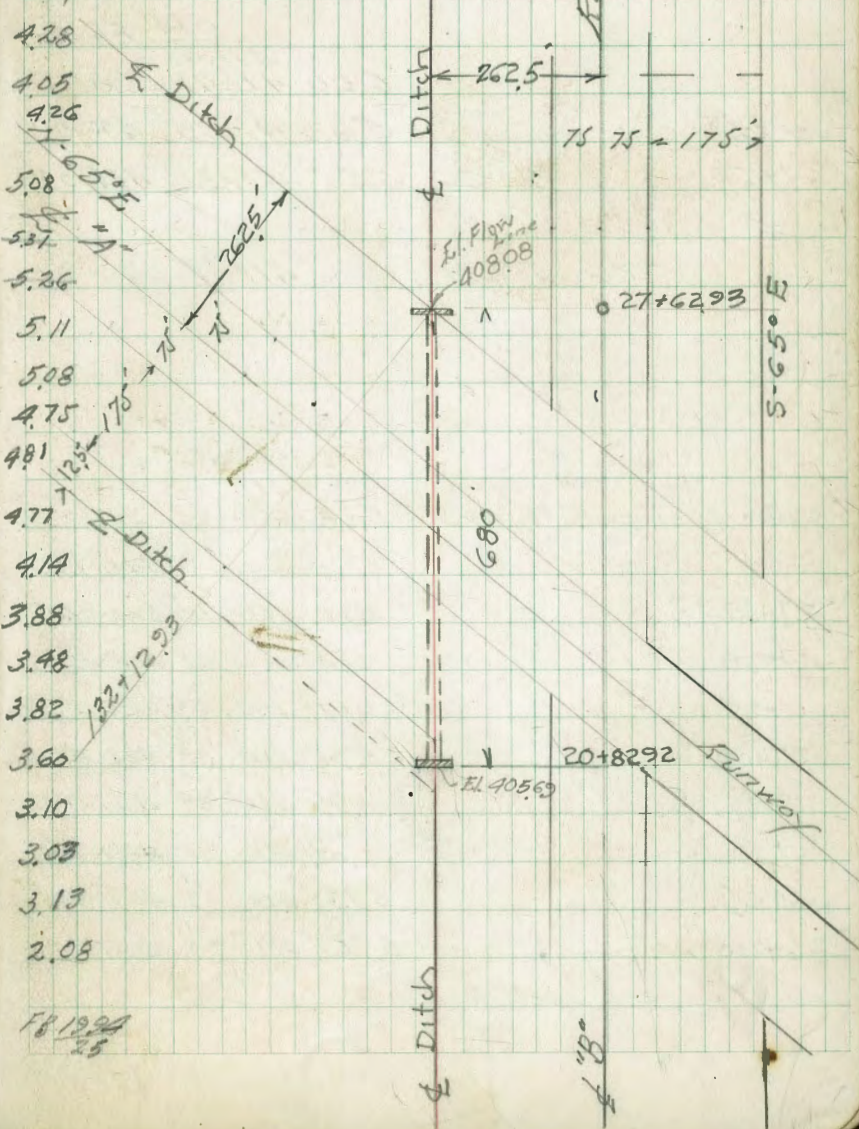
8.28 407.33

Runway

FB 1993-2

8.28 407.33

Cuts offsets  
407 10' 6"



Restaked portion of Conc.  
Culvert - Stakes Knocked  
out by grader

		0.04	El. Fl.
	6.00	411.40	CK
2A+75	5.62	411.79	407.07
2A+50	5.55	411.86	406.98
	5.26	417.41	412.15

Sta-25+00  
C 4 73  
C 4 88

Sta-2A+25

		0.01	El. Fl.
132+50 17" H of Ditch		411.62	
check slope stake FB 1993-5	5.25	411.61	
		51	Flow Line
27+62.93	6.16	410.70	408.08 ✓
+50	6.24	410.62	408.04
+25	6.17	410.69	407.95
27+00	5.98	410.88	407.86
+75	5.99	410.87	407.77
+50	6.01	410.85	407.68
+25	5.73	411.13	407.59
26+00	5.36	411.50	407.51

Cuts	offsets
2.62	10' Lt.
2.58	"
2.74	"
3.02	"
3.10	"
3.17	"
3.54	"
3.99	"

416.86

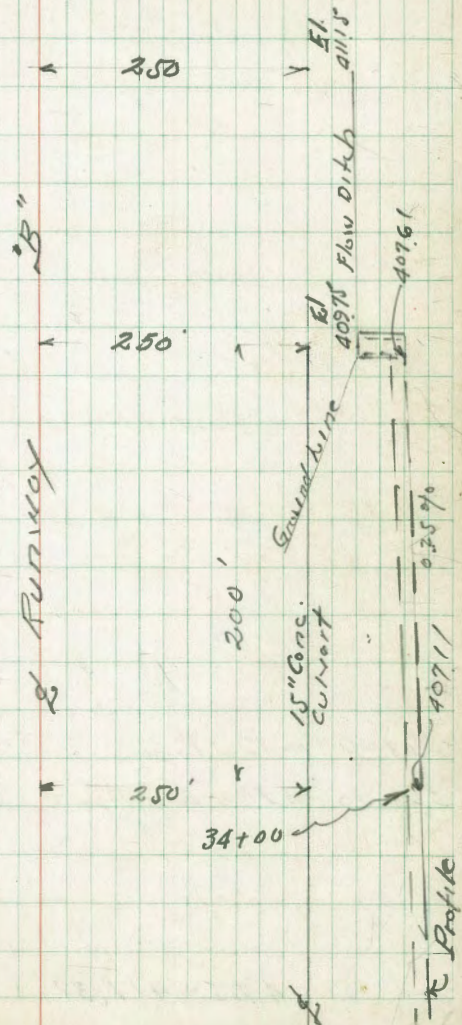
Gibbs Airport  
Walker Johnson  
Culvert Grades South of Runway "B"  
Pope  
Riley  
10/14-48  
Cont from Page 34

Station 43+00 250' Rt. of "B" Runway  
Flow line Ditch → 411.15

250' Rt. of "B" Runway  
36+00 Top of Grating - Flow line of Ditch → 409.75  
6.49 412.01 El. Flow line  
36+00 End of line 15" Conc. Pipe 407.61  
+75 6.17 412.33 407.55  
+50 6.19 412.31 407.49  
+25 6.08 412.42 407.43  
35+00 5.61 412.82 407.36  
+75 5.45 413.05 407.30  
+50 5.83 412.67 407.24  
+25 5.95 412.55 407.17  
34+00 5.73 412.77 407.11

Cont. P. 34  
+10 ch. 6.39 418.50 4.62 412.11 on stub 30+50  
6.22 416.80 410.58

Cuts Offset  
10' Lt.  
440  
4.78  
4.82  
4.99  
5.53  
5.75  
5.43  
5.38  
5.66



200' Rt. of "B" Runway  
PB 1860-16

Profile

Walker  
Johnson  
11-1-48

Grades on Inlet No 1  
Gibbs Airport  
250' Rt 36+00 P-49

El. Flow

36+00 on Top Pipe	8.31	409.66	409.75
36+00 on Flow Exit Pipe	9.76	407.61	407.61

To  
P.O. 69 - Top Grating

4.25 417.37 413.12

B.M. # 5 - Pipe 90' Lt 35+75 Run "B"  
FB 1860  
78

Gibbs Airport - Sewer Grades  
 "B" Line  
 Restaked Septic Tank

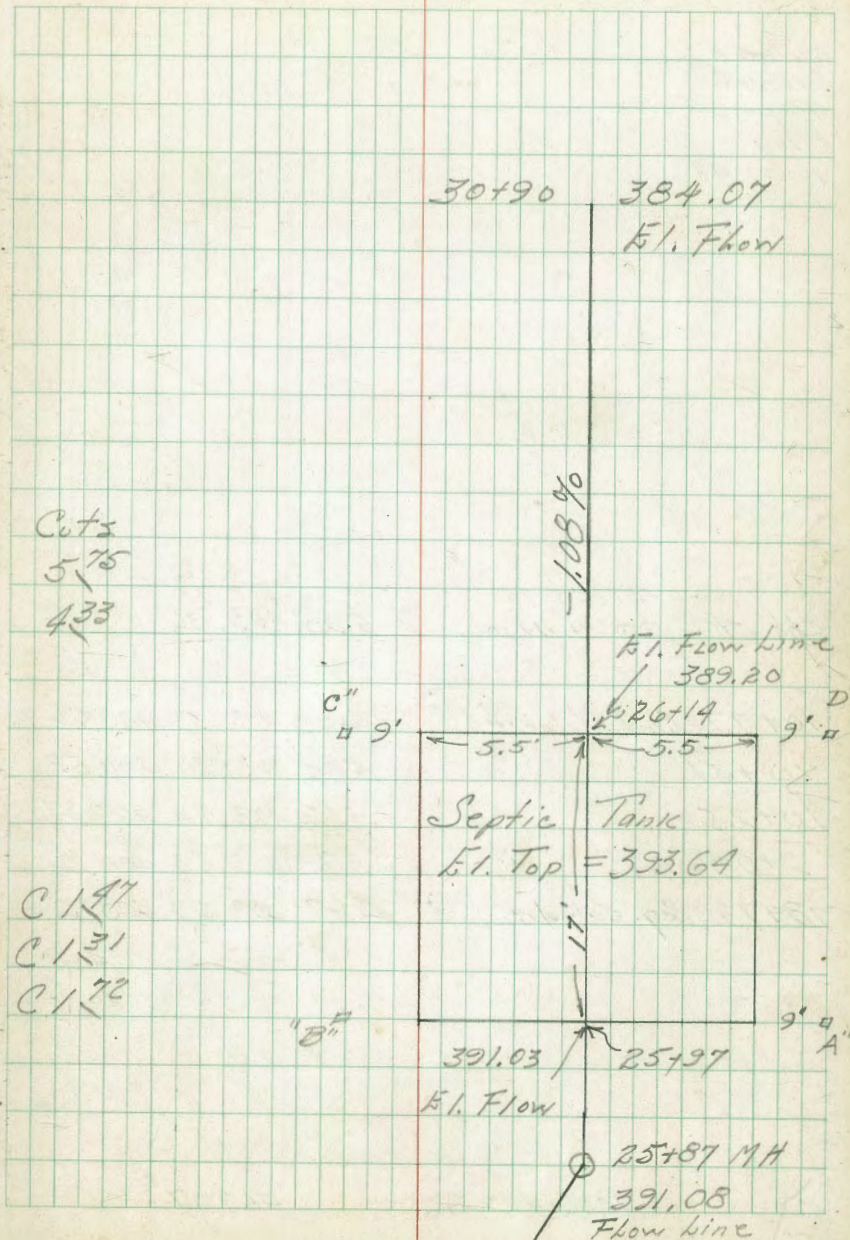
			El.	Flow
26+14	Outlet Septic Tank	4.96	394.95	389.20
25+97	Inlet Septic Tank	4.55	395.36	391.03

Cuts  
 5.75  
 4.33

"C" 26+14	East Edge Septic Tank	4.80	395.11	393.64
"D" 26+14	South Edge Septic Tank	4.96	394.95	393.64
"A" 25+97	North Edge Septic Tank	4.55	395.36	393.64
"B" 25+97	(Stake Knocked out by Machine)			

C 1.47  
 C 1.31  
 C 1.72

4.45 399.91 395.46



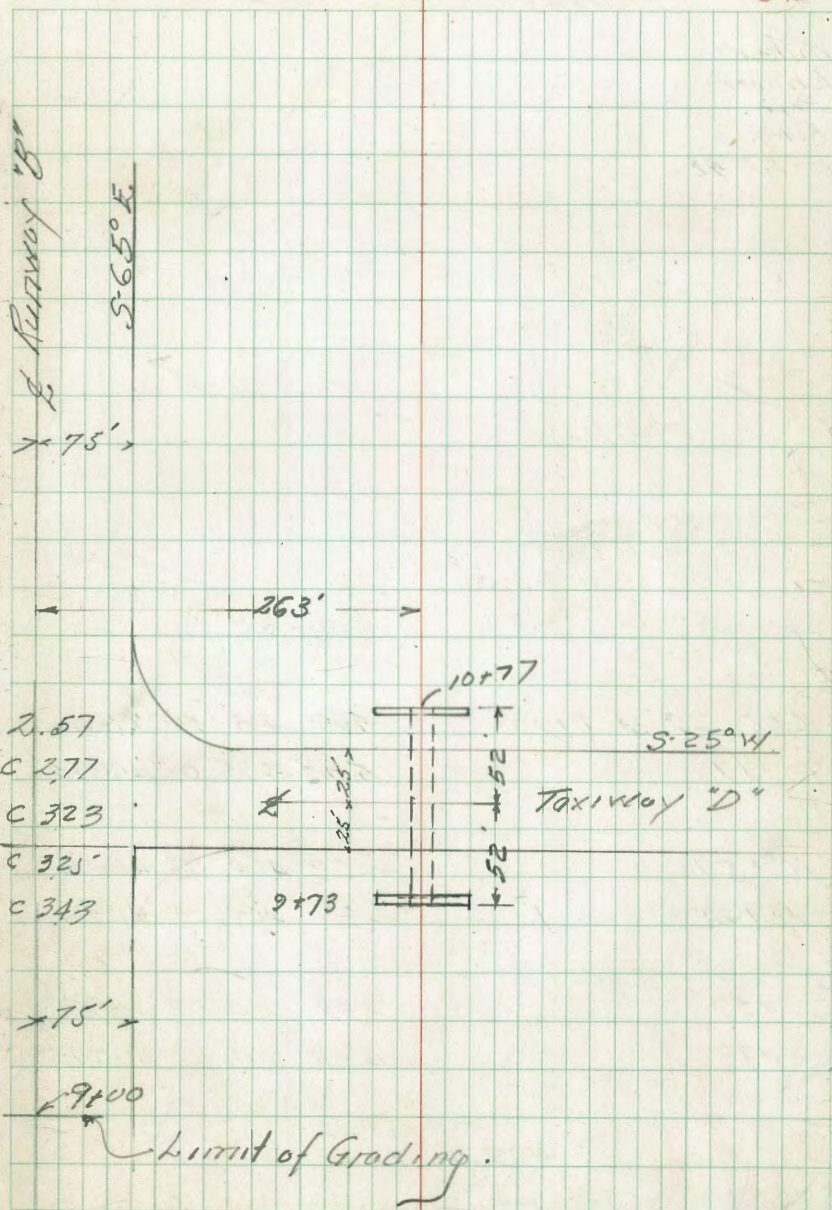
Gibbs Airport - Grades 24" Culvert

Walker  
Johnson  
Pope  
Riley  
10-21-48

		402		
FB1860-10		403.38		
Chk Stake 250' RT 11+50	5.90	403.36		
10+77 = End Culvert	6.03	403.23	400.66	2.57
10+51	5.96	403.30	400.53	C 2.77
10+25	5.62	403.64	400.41	C 3.23
9+99	5.73	403.53	400.28	C 3.25
9+73 = Beg. Culvert	5.67	403.59	400.16	C 3.43

6.19 402.26

BM. Mon  
403.07 P.59



Gibbs Airport  
Grades - 30" Culvert

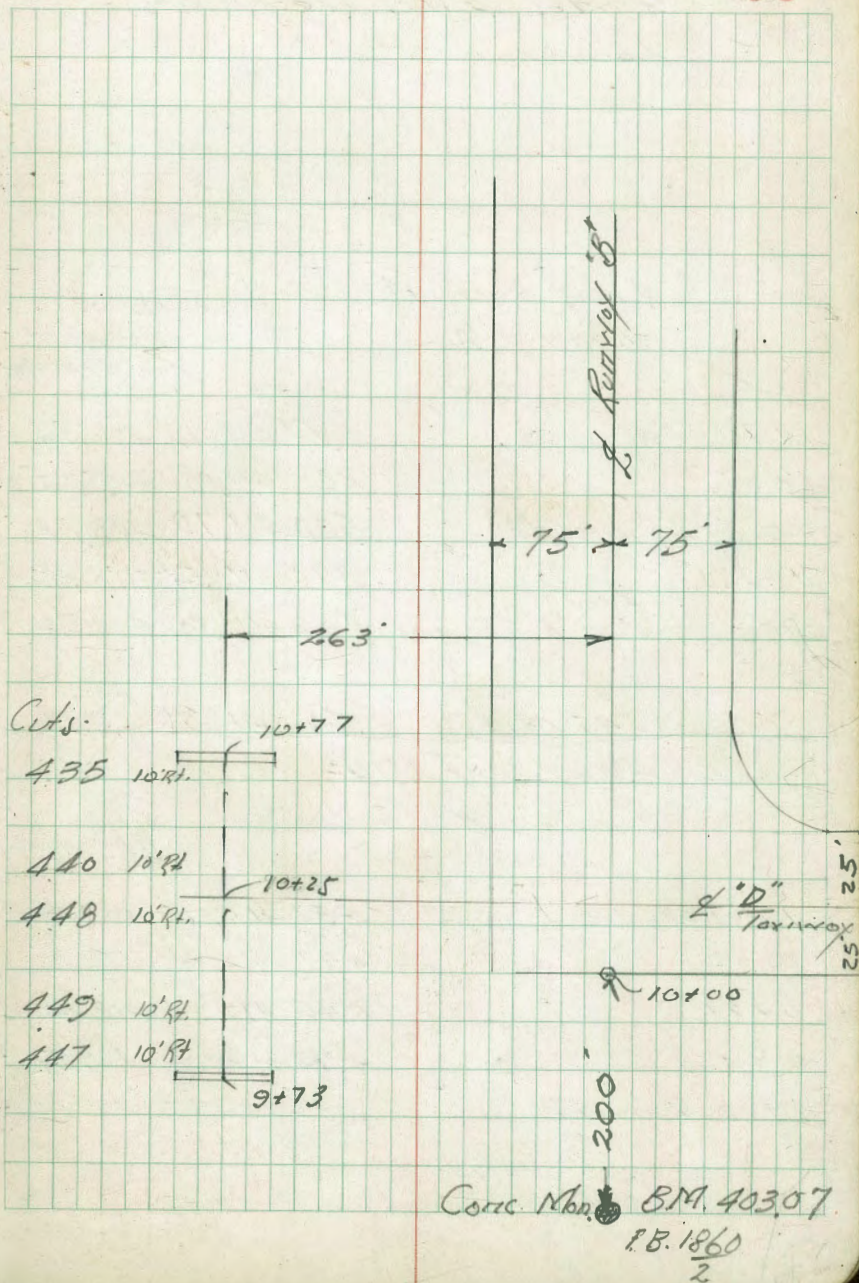
Walker  
Johnson  
Pope  
Riley  
10-21-48

Sta	Elev	Flow Line
chk. 250' ± 11+00	430	404.96
10+77	4.35	405.01
10+51	4.33	404.93
10+25	4.37	404.89
9+99	4.49	404.77
9+73	4.63	404.63

π from P 52  
409.26

Cuts:

4.35	10' Rt.	10+77
4.40	10' Rt.	10+25
4.48	10' Rt.	
4.49	10' Rt.	
4.47	10' Rt.	9+73



Correc. Mon. BM. 403.07  
P.B. 1860  
2

Gibbs Airport  
 Grades 4 Way Elec Ducts  
 Location P-91

4 Way Duct 129+00  
 Runway A

Elev.  
 Bottom of  
 Encasement

Cuts.      offsets

1+70 = End	5.5	411.19	407.96
1+27.5	5.62	411.08	408.37
0+85 = 1/2 Runway "A"	5.00	411.70	408.78
0+42.5	5.16	411.54	408.49
0+00 = 4 way Duct "A" Runway	5.40	411.30	408.20

C 3.23  
 C 2.71  
 C 2.92  
 3.05  
 2.10

411.30  
 3.3  
 409.8

545 416.70      411.25

4 Way Duct 25+64  
 Runway "B"

Elev.  
 Bottom  
 of Encasement

Cuts.      offsets

1+70 = End	5.5	412.15	408.95
1+27.5	4.97	412.69	409.37
0+85	4.66	412.00	409.80
0+42.5	4.70	412.77	409.37
0+00 Runway "B"	5.72	412.34	408.25

3.20      4' Rt.  
 3.32 3.12  
 3.20 3.00  
 3.40 3.27  
 3.29 3.20

6.19 417.45  
 6.41 417.66

411.25

#3  
 B.M. Iron Pipe 85' Ht. 24+00 Rwy "B" FB 1860-78



Walker  
Johnson  
Page  
Haley  
11-2-48

Gibbs Airport  
Grades Elec. Ducts in  
Intersection Runway "A" & "B"  
Locations P. 42

				File Bottom Trench
5+69.26 = End Conc. Encasement	5.92	409.74	406.70	
5+21.68 436	5.72	409.94	407.20	
4+76.09 = Bk = 2" A Runway	5.28	410.38	407.7	
4+24	5.40	410.26	407.75	
3+84.4 = Bag Conc. Encasement	5.44	410.22	407.80	
3+72	5.65	410.01	407.86	
3+20 = A Rt. 1	5.54	410.12	407.56	
2+85 = Taxway	5.39	410.27	407.84	
	4.95	410.71	407.7	
2+50	4.40	415.66	411.26	B.M. El. Bottom Duct Encasement
2+50	6.61	410.70	408.00	
2+02.7	6.13	411.18	408.34	
1+47.6	5.60	411.71	408.71	
0+94.5 = Bk	5.44	411.87	409.10	
0+47.25	5.64	411.67	408.85	
0+00	6.07	411.24	408.60	
	6.05	417.31	411.26	

Cuts	
3.04	
2.74	
2.68	
2.51	
2.26	
2.42	
2.15	Rt. Δ to Forward Turn
2.56	Rt. Δ to Back Turn
2.43	
3.01	Rt. Δ to Forward Turn
Cuts	offset
2.70	4' RT Rt Δ to Back Turn
2.84	
3.00	
2.77	
2.82	
2.64	
B.M. # 3	

410.86  
33  
407.56

Walker  
Johnson  
Pope  
Rls  
11-3-48

Gibbs Airport - Duct line  
Line E Across "Rdy. A"  
Location P. 42

56

	File Station Cont. Encasement	Cuts	offsets
2+37	4.93 412.09 408.1	4.0	4'4"
2+00	5.16 411.36 408.25	3.11	'
1+50	5.21 411.31 408.45	2.86	'
1+14 = Bk	5.29 411.23 408.60	2.63	'
0+50	5.64 410.88 408.15	2.73	'
0+00	6.16 410.36 407.8	2.56	'

5.26 416.52

41126 BM #3

Walker ~ Gibbs Airport -  
 Johnson Grades Elec. Duct Line D  
 Pope  
 Riley Sketch P 42  
 11-4-48

chk 0100 line E 5.49 <sup>001</sup> 410.36  
 410.35  
 E.I. Bottom  
 Conc. Encasement

Cuts offsets.

2+35	5.51	410.33	407.80	2.53'	4' Lt
2+00	5.35	410.49	407.70	2.8'	'
1+50	5.53	410.31	407.57	2.74'	'
1+22 = Blk & Ray "B"	5.45	410.39	407.50	2.89'	'
1+00	5.66	410.18	407.36	2.82'	'
0+50	5.92	409.92	407.03	2.89'	'
0+00	6.22	409.62	406.70	2.92'	'

4.58 415.84 411.26 BM #3

Gibbs Airport ~ Elec. Ducts

NO 3

El. Bottom Encasement

0+83 = End Duct.	4.73	415.52	412.72
0+48	4.69	415.56	412.95
0+00 Beg. Duct	4.78	415.47	412.72

4.77 420.25

415.28 BM#7 Mon. 146+00 "A" Runway

FB 1860-79

chk 15+01.25

7191

0.00	412.96
6.05	412.92

0+96 = End Duct 5.97 413.00 410.7

0+48 = 2. Taxway "F" 5.99 412.98 410.4

0+00 5.62 413.35 410.1

5.85 418.97 41312 = BM#5

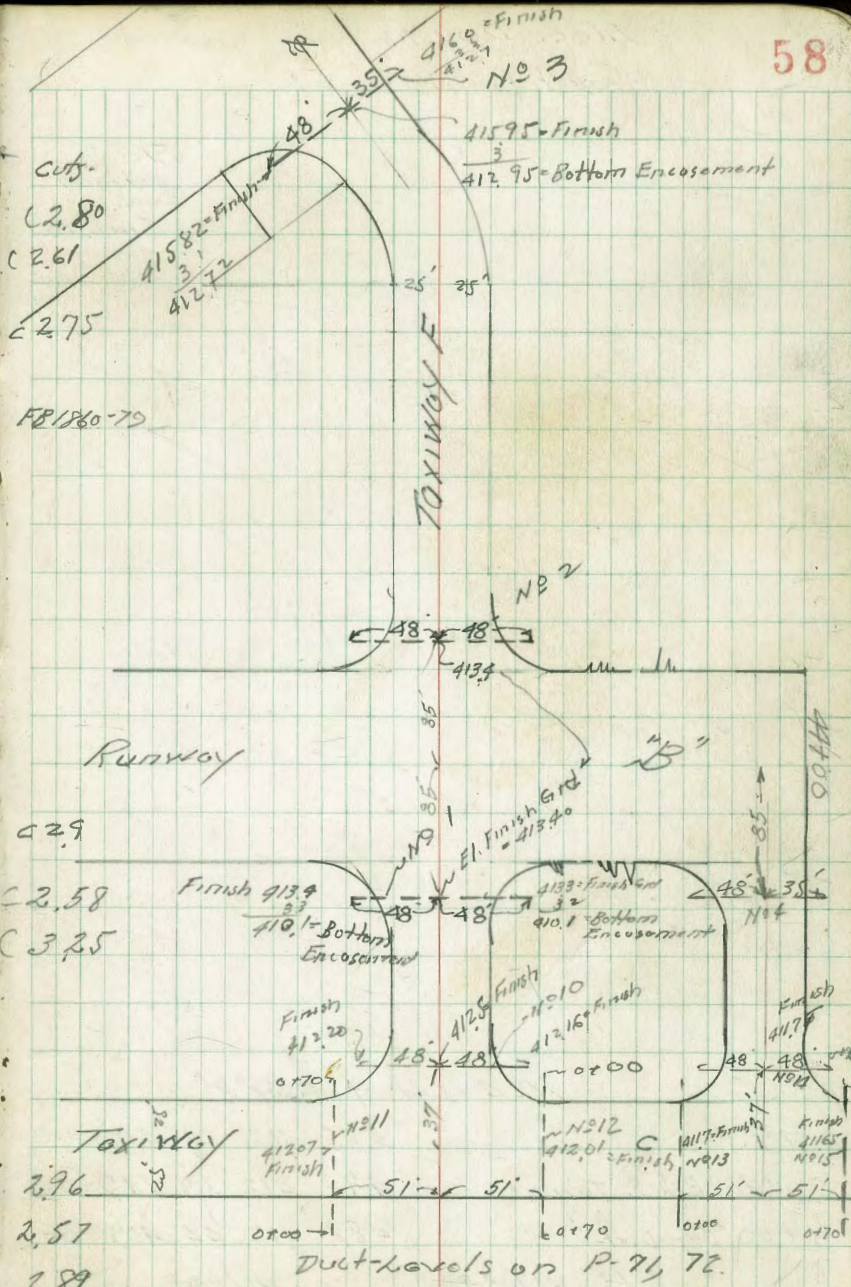
NO. 2

0+96 5.11 413.06 410.1

148 5.16 413.01 410.44

0+00 5.18 412.99 410.1

508 418.17 41312 817 #5



Duct Levels on P. 76, 72.

Elec. Ducts

Cont. from P- 58

El.  
Bottom  
Conc.  
Excusement

No 4 - End of Runj "B"

0 + 7.3	5.05	412.28	409.00
0 + 48 = Brk to Torrey	4.94	412.39	409.38
0 + 00 = Beg. Duct	4.89	412.44	409.00
6.13	417.33	411.20	

offsets

C 328	4.44
3.01	"
3.44	"
3.141	Conc. Mon. 46100 Runj "B"

~ Gibbs Airport - Grades  
For Elec. Ducts Taxiway "D"

NO 5 Duct

El.  
Bottom  
Conc.  
Encasement

NO 5

0+83	5.28	404.96	401.74	C 3.22
1+35	5.62	404.62	401.50	C 3.12
0+100	5.96	404.78	401.32	C 3.46
7.17	410.24	403.07		8" M. Conc. Max 8" x 10" B' Rwy

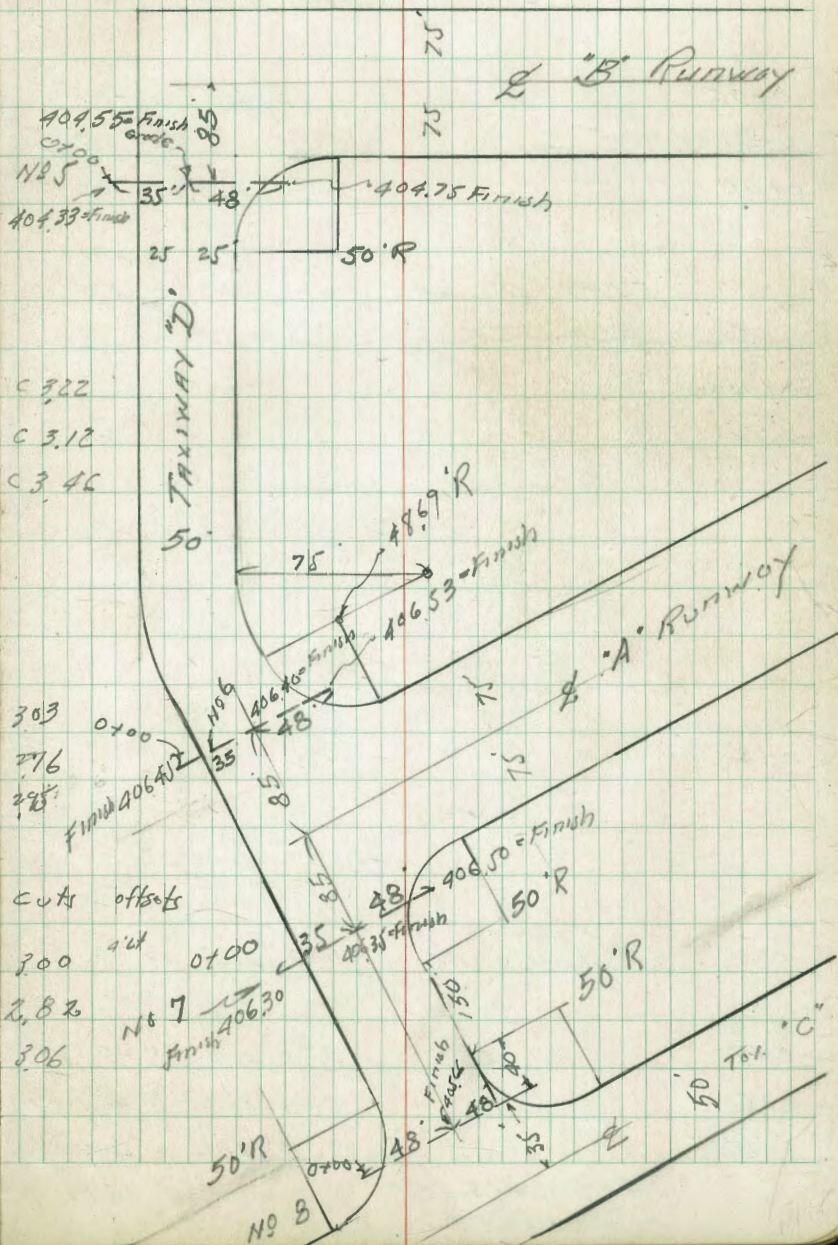
NO 6 offsets 4' Lt.

0+83	4.27	406.56	403.53	303
0+35	4.77	406.06	403.30	276
0+100	4.75	406.08	403.13	278

NO 7 offsets 4' Lt.

0+83	4.33	406.50	403.50	300
1+35	4.75	406.08	403.26	282
0+100	4.67	406.16	403.10	306

7.49 410.83 403.34  
8" M. Conc. Max  
108' x 100'  
35" B' Rwy  
FBI 860



Duct # 8 offsets 4' L

0+96	5.18	405.65	403.7	3.0
0+98 = 1/2 "D" Taxiway	5.25	405.58	402.5	3.08
0+00	5.43	405.40	402.3	3.1

7.99 410.83 403.34 P. 60

Walker  
Johnson  
Pope  
Riley  
11-26-98

Duct # 9

offsets 4' L

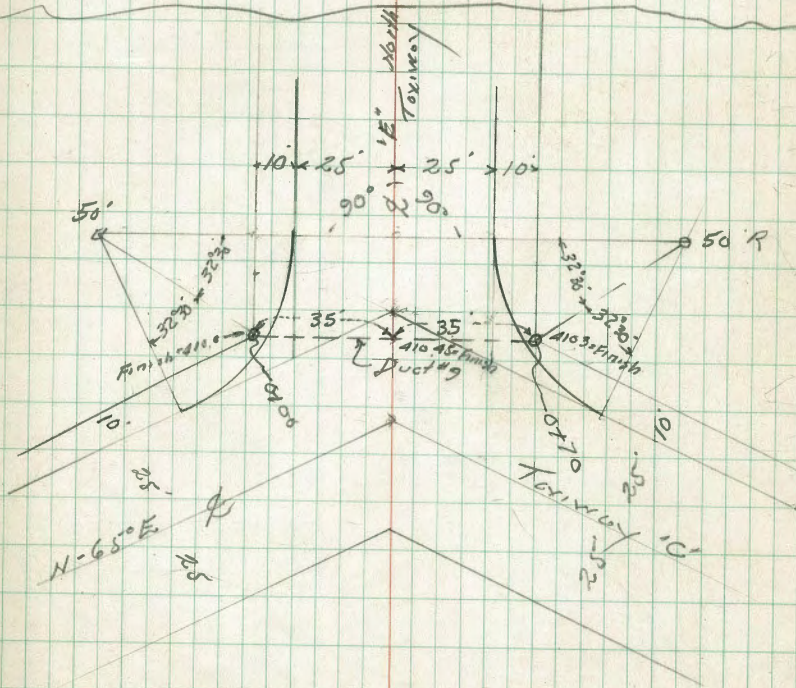
		501	
FB 2001-2	5.22	410.22	
CHK stub. Subgrade 318890		410.23	

0+70	5.70	409.75	407.10	2.65
0+35	5.39	410.06	407.40	2.66
0+00	5.65	409.80	407.00	2.80

4.19 415.45

411.26 - BM -

→ #3 Pipe 85' RL. 24100 RWY 'B'  
FB 1860-79

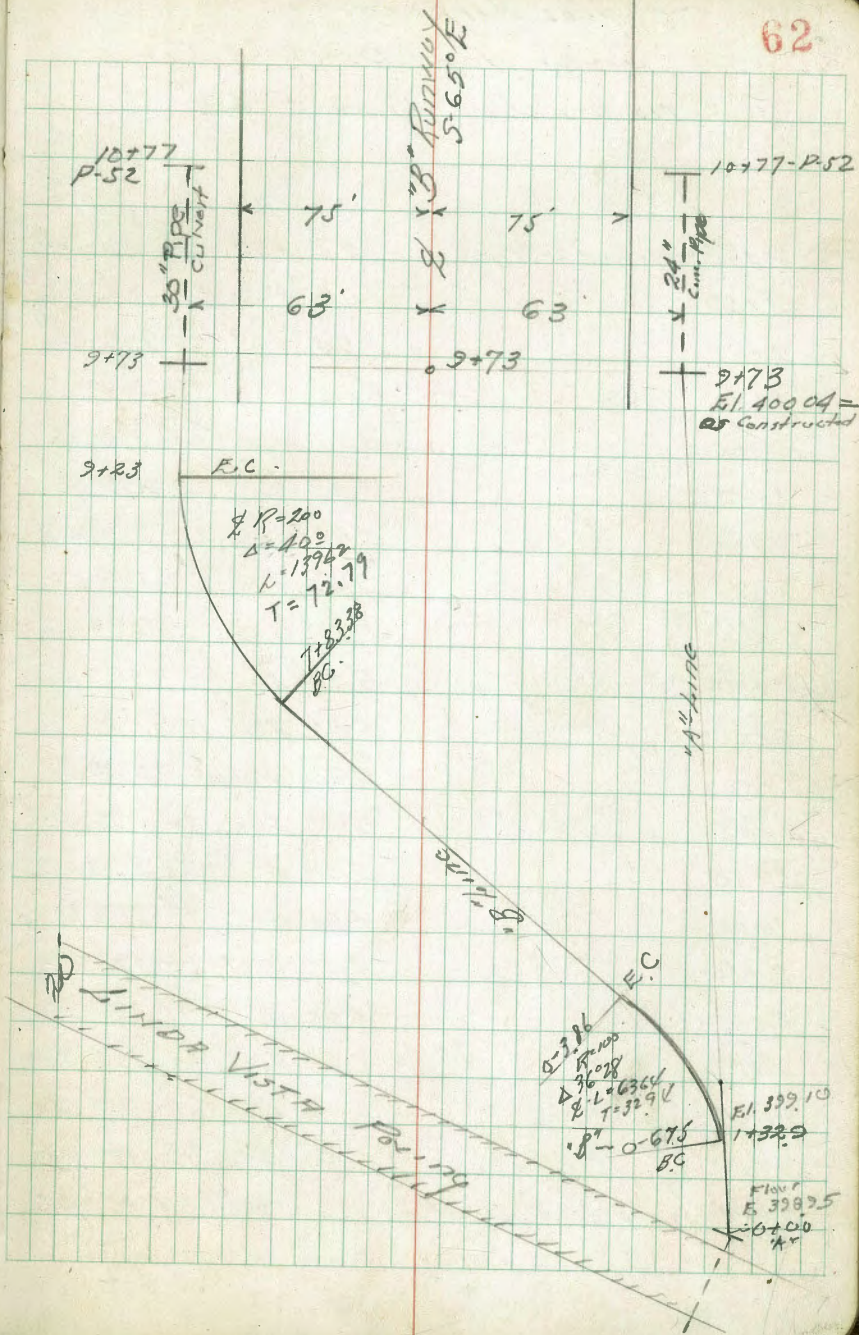


Gibbs Airport

Walker  
Johnson  
Rosa  
Riley  
11-11-48

Location Proposed Ditches  
WLY End Runway "B"

Grades P-63-64





Gibbs Airport

Grades for Ditch "A" line  
as per location P-62

2+73 - 29. East 24" Pipe	707	400.04	400.04
9+50	363	403.48	400.02
9+00	394	403.17	399.96
8+50	422	402.89	399.91
8+00	506	402.05	399.86
7+50	483	402.28	399.80
7+00	482	402.29	399.74
6+50	452	402.59	399.68
6+00	471	402.40	399.63
5+50	508	402.03	399.57
5+00	531	401.80	399.51
4+50	522	401.89	399.46
4+00	507	402.04	399.40
3+50	523	401.88	399.34
3+00	498	402.13	399.29
2+50	546	401.65	399.24
2+00	525	401.14	399.18
1+50	663	400.48	399.12
1+00	643	400.68	399.06
0+50	682	400.29	399.00
0+00 on Flow Existing Pipe	816	328.95	398.95
	4.04	407.11	403.07

Cuts      offsets

3.46'	15' RA of L
3.21'	"
2.98'	"
2.19'	"
2.48'	"
2.55'	"
2.21'	"
2.77'	"
2.46'	"
2.29'	"
2.43'	"
2.64'	"
2.54'	"
2.84'	"
2.41'	"
1.98'	"
1.36'	"
1.62'	"
1.29'	"
000	"
B.M. Conc. Mark P-53	

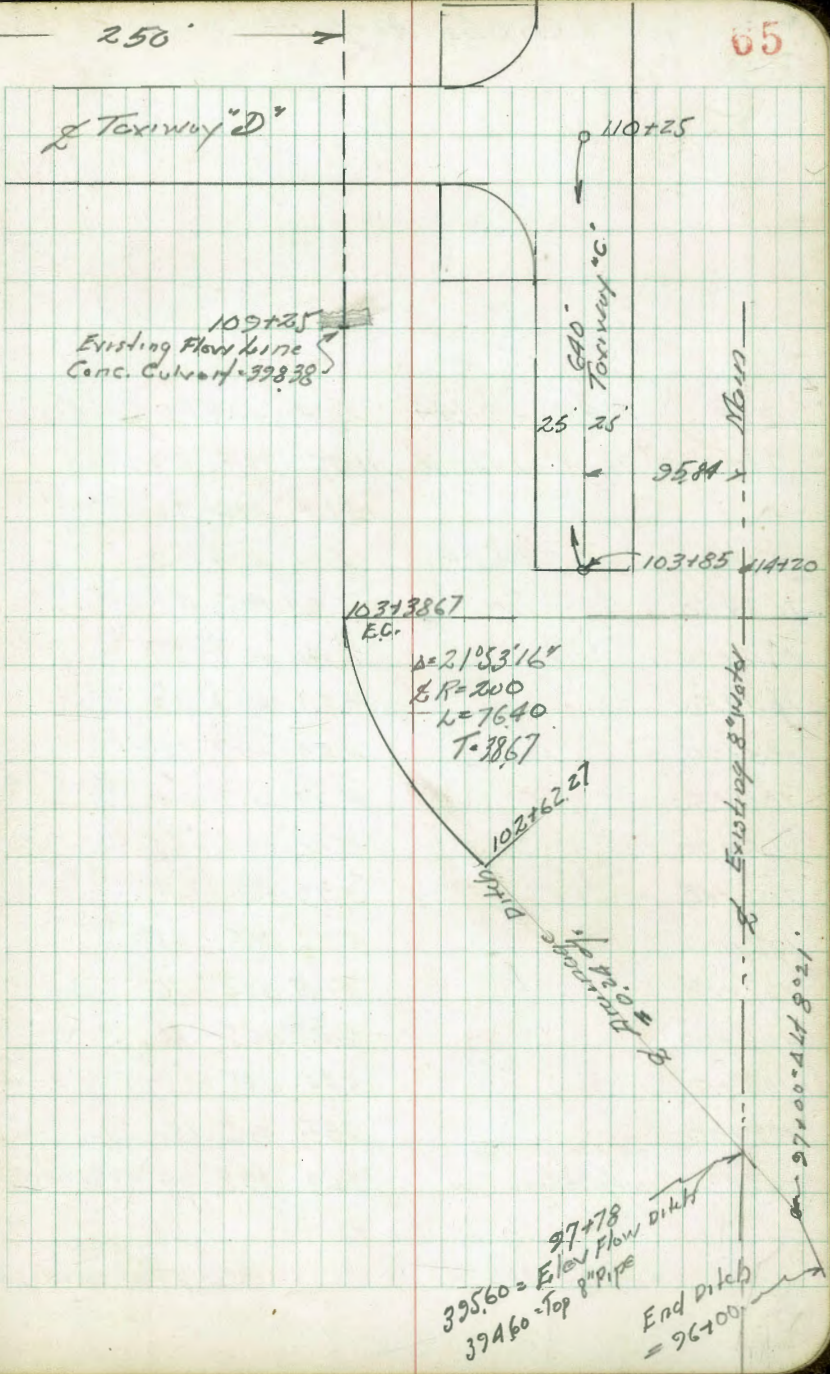
Gibbs Airport  
 Grades Ditch "B" as per  
 Location P-61

	El. Existing Cont. Pipe	El. Flow Line Ditch 400.16 400.04	Cuts	Offsets
2+73				
2+23 = E.C.	2.83	404.28	400.00	4.28' 15' Lt of E
8+8379	2.97	404.14	399.96	4.18'
8+4446	3.08	404.03	399.93	4.10'
8+05.19	3.03	404.08	399.89	4.19'
7+83.78 = B.C. H	3.20	403.91	399.86	4.05'
7+50	3.18	403.93	399.83	4.10'
7+00	3.46	403.65	399.79	3.86'
6+50	3.78	403.33	399.74	3.59'
6+00	3.91	403.20	399.70	3.50'
5+50	4.08	403.03	399.65	3.38'
5+00	4.22	402.89	399.61	3.28'
4+50	4.74	402.87	399.56	2.81'
4+00	5.06	402.05	399.52	2.53'
3+50	5.50	401.61	399.48	2.13'
3+00	5.72	401.29	399.43	1.96'
2+50	5.96	401.15	399.38	1.77'
2+00	5.94	401.17	399.34	1.83'
1+50	5.95	401.16	399.30	1.86'
1+00	5.74	401.37	399.25	2.12'
0+50	5.26	401.15	399.20	1.95'
0-3.86 = E.C.	6.57	400.54	399.15	1.39'
0-35.68 = L Curve	6.91	400.20	399.12	1.08'

40711  
5

Locations Proposed  
 Drainage Ditch - of Rwy "A"  
 To Drain Runway "A"

Grades P-67, 68.



Gibbs Airport

66

T.P.	0.94	404.44	2.04	404.00	
97+78	27	Top 8" Water Main	11.95	394.59	
			<del>13.14</del>	<del>392.90</del>	
T.P.	2.04	406.04	3.01	404.00	
103+50			6.61	405.40	
104+00			5.40	407.61	
104+50			4.93	407.08	
105+00			4.83	407.18	
105+50			4.97	407.04	
106+00			5.36	406.65	
106+50			5.79	406.22	
107+00			5.76	406.25	
107+50			5.85	406.16	
108+00			6.21	405.80	
108+50			6.66	405.35	
109+00			6.85	405.16	
109+25	on Flow Line Req. Exist. Conc. Pipe		12.63	398.38	378.38

8.67 412.01

403.34 <sup>RTA</sup> Conc. Mar 2

108+00 "A" Runy

Gibbs Airport

Drainage Ditch Grades

Cont. P-68

Location

P. 6.5' Ground Elev

Flow-Line

Cuts

104+00			540	406.61	397.12
T.P.	6.61	412.01	401	405.40	
<del>T.P.</del>	<del>6.64</del>	<del>406.04</del>	<del>401</del>	<del>405.40</del>	
103+50			101	405.40	397.00
103+38.67=E.C.			4.53	404.88	396.97
103+01.47			5.02	404.32	396.88
102+67.27=BC.			5.15	404.26	396.79
102+00			5.17	404.24	396.64
T.P.	5.79	409.41	0.82	403.62	
101+50			0.82	403.62	396.52
101+00			1.72	402.65	396.40
100+50			2.60	401.84	396.28
100+00			3.31	401.13	396.16
99+50			4.69	399.75	396.04
99+00			5.69	398.75	395.92
98+50			6.21	398.23	395.80
98+00			6.75	397.69	395.68
97+78			6.89	397.55	395.62
97+35			7.40	397.04	395.52
97+00=Δ 8° 21' Lt			7.55	396.89	395.44
96+50			8.23	396.21	395.32
96+00			8.99	395.45	395.20
T.P.	0.44	404.44	8.01	404.00	
	8.67	412.01		403.34	

2.49'  
8.40'  
7.91'  
7.44'  
7.47'  
7.60'  
7.10'  
6.25'  
5.56'  
4.97'  
3.71'  
2.83'  
2.43'  
2.01'  
1.93'  
1.52'  
1.45'  
0.89'  
0.25'

Drainage Ditch Grades  
Cont. from P. 67

Station	Flow	Grade	Station	Grade
108+00 "A" Rwy.	8.67	403.34		
B.M. Conc. Man				
107+25 - Beg. Exist. Conc. Pipe	13.63	398.38	398.38	
107+00	6.85	405.16	398.32	
108+50	6.66	405.35	398.20	
108+00 -	6.21	405.80	398.08	
107+50 -	5.85	406.16	397.96	
107+00 -	5.76	406.25	397.84	
106+50 -	5.79	406.22	397.72	
106+00 -	5.36	406.65	397.60	
105+50	4.97	407.04	397.48	
105+00 -	4.83	407.18	397.36	
104+50	4.93	407.08	397.24	

6.84  
7.15  
7.72  
8.20  
8.41  
8.50  
9.05  
9.56  
9.82  
9.84

41201

Walker  
 Johnson  
 Pope  
 Riley  
 11-17-48

Grades - Sewer Line - Gibbs Airport  
 C-line location P. 21

Station	Rods	Elev. Stakes	Elev. Flowline
Cont. P. 70			
5+05	4.37	411.83	405.22
4+70	5.28	410.92	405.04
4+35	5.52	410.68	404.87
4+00 = <sup>#2</sup> I.M.H. POT.	5.71	410.49	404.69
3+85	5.76	410.44	404.62
3+50	6.12	410.08	404.44
T.P. 6.21	416.20	3.88	402.99
3+15	3.88	402.99	404.27
2+80	4.20	402.67	404.09
2+45	4.32	402.55	403.92
2+10	4.64	402.23	403.74
1+75	4.38	402.49	403.57
1+40	5.13	408.74	403.39
1+05	5.25	408.62	403.22
0+70	5.31	408.56	403.04
0+35	5.28	408.59	402.87
0+00	4.54	409.33	402.69
= 0+00 this line	Flowline		
3+50 P. 21 location	11.18	402.69	402.69
P. 24 = Grade			
T.P.	3.87	413.87	6.05 410.00
	4.79	416.05	411.26

Cuts      offsets

6.61	10' Lt.
5.88	'
5.81	'
5.80	'
5.82	'
5.64	'
5.72	'
5.58	'
5.63	'
5.49	'
5.92	'
5.35	'
5.40	'
5.52	'
5.73	'
6.64	'

B.M. #3 = Iron Pipe 85' R.H.

Gibbs Airport - Sewer Const.  
 "C" Line Cont. from P-69

Station

	Rods	Stake Elev.	El. Flow Line	Cuts	offsets
FB1874-56 chk. 2800 N 60° E	4.88	411.28 411.32			
8+00 = End of line	4.72	411.48	406.69	C 4.79	10' Lt.
7+85	4.83	411.37	406.62	4.75	'
7+50	4.69	411.51	406.44	5.07	'
7+15	4.92	411.28	406.27	5.01	'
6+80	4.45	411.75	406.09	5.66	'
6+45	4.86	411.34	405.92	5.42	'
6+10	4.87	411.33	405.74	5.59	'
5+75	4.57	411.63	405.57	6.06	'
5+40	4.52	411.68	405.39	6.29	'

416.20



Walker  
 Johnson  
 Page  
 12/1-48

Grades - Elec. Ducts

at Intersection Torreycoys "F" + "C"

Location P-58

			El. Bottom Ducts	Cuts	offsets-	
N <sup>o</sup> 10						
0+96		5.75	412.13	408.90	3.2	4' Lt.
0+48	to Torreycoys "F"	5.78	412.10	409.1	3.0	
0+00		5.98	411.90	408.9	3.0	

N<sup>o</sup> 11

0+70		6.07	411.81	408.9	2.9	
0+35	to Torreycoys "C"	5.59	412.29	409.1	3.2	
0+00		6.22	411.66	408.90	2.8	

N<sup>o</sup> 12

0+70		5.83	412.05	408.90	3.2	
0+35		5.82	412.06	409.10	3.0	
0+00		5.63	412.25	408.90	3.4	
chk	FB. 2001-28 94100 2534	6.08	411.82 411.90			
chk		5.94	412.94			

476 417.88

413.12

BVI #5

Walker  
Johnson  
Fope  
Riley  
12-9-48

Elec. Ducts Grades  
1st Taxway "C" + Taxway at  
43+25 on Taxway "C"  
Location P-58

Fl.  
Bottom of  
Carc. Encasement

H216

0+96	4.80	411.39	408.40		
0+48	4.82	411.37	408.70		
0+00	4.66	411.53	408.40		

Cuts. effects

3.00
2.7
3.1

H215

0+70	5.55	410.64	408.40		
0+35	4.88	411.31	408.70		
0+00	4.97	411.22	408.40		

2.2
2.6
2.8

H213

0+70	4.55	411.64	408.40		
0+35	4.69	411.50	408.70		
0+00	5.46	410.73	408.40		

3.2
2.8
2.3

FB 2001-9  
chk sub 2+75 on Lt Taxway 4.94 411.25  
5.39 416.19 410.90

B.M. Conc. Man 47+09.28 Taxway "C"  
FB 1860  
79

Mulker  
Johnson  
Fope  
Kiley  
12-15-48

Gibbs Airport - Finish Grades

MH # 2 - (3574'N 562.7'W)

562 406.18 Elev. Top MH

4.80 407.00 406.40  
407.00

5.88 411.80 405.92 175' RT

(MH # 3 - 3152.45'N 562.43' West)

4.53 405.90 405.90

10.23 410.43 10.23 400.20  
400.10

5.07 410.33 405.24

MH # 1 - 3152.45'N 82.43' W

5.39 408.76 408.76

11.46 414.15 402.69 -

MH 4100 P-69

stake 1874-P-  
chk 2900N 300E 4.80 410.73 410.70 Elev. Top MH

410.46

10.81 415.50 402.69

P-21 = MH # 4  
1874-66

51.

chk 2900N 900'W 4.57 403.14

403.80  
403.80

9.38 407.71 398.33

MH # 5

chk 2900N 1100'W 5.26 400.37

401.37 -

9.85 405.63 395.78

For Final Levels

73

on Rims of M.H.s: See P-79

Grade

12100 Taxiway "C" FB 200 / P-34

Cuts 0

Grade 10' W

B.M. on stub 3100'N 700'W FB 1874-62

Grade 5' West

B.M.

Elev. Elev. Flow

Add 6" Ring

MH 4100 P-69

This M.H. At this Elev.

Ground to be brought up approx 1.2' to meet same

Flowline 11490 = MH # P-25

Elev. Top MH

400.00 = Elev. Grade at MH, which  
will be 1.37 Above Finish Grade

Flow MH # 5 - 16480 - P-25

Grades-Top M.H.s. Sewer Line

Cont. from P-73

2200 N	} 1174		608
Chk 1400 W		69	546
			398.54

10.40 404.00

393.60

399.00 → Top MH OK which is about 0.9 Above Land Area Grade

SM. Flow MH 21+00 - MH#6 P-26

Walker  
Johnston  
12-15-48  
Grades - Fire Hydrants - Gibbs Airport

FH 3477N 549'W  
4.51 407.29 406.50

411.80 x P.73

109+22.5 = 89' RT = FH

5.58 405.03 405.03  
5.46 410.61 405.15

116+56 110' RT = FH

4.79 405.57 405.57  
9.96 410.36 405.40

32+156 102' RT = FH

5.78 411.48 411.48  
9.94 417.26 412.82

40+68.4 = 102' RT = FH

4.40 410.95  
3.93 415.35 411.42

cut 4100 50' LT  
FB 1997-66  
102 411.39  
411.25  
0.14

75

cut offset

0.72 5' W

0.00 5' South

109+00 75' RT FB 1227-54

116+50 125' RT

32+00 100' RT FB 1997-63

Finish  
Grades Water Valves

Johnson  
Pope  
Riley

12-29-48

Cont on P 77

#5 Valve Box - 40+68.6 90' RT  
5.19 411.00 411.00  
5.24 416.19 410.95

#4 Valve Box - 32+15.6 97' RT  
5.25 416.53 416.53  
5.30 416.78 411.48

#3 Valve Box - 3482 N 549 W  
4.90 406.50 406.50  
4.11 411.40 407.27

#2 Valve Box - 116+56 - 105' RT  
5.16 405.62 405.62  
5.21 410.78 405.57

#1 Valve Box 109+22.5 99' RT  
5.42 405.08 405.08  
5.42 410.57 405.15

76

102' RT  
F.H. Stake 40+68.6

0.00  
102' RT  
F.H. Stake 35+15.6

0.100  
549 W  
F.H. Stake 3477 N

0.00  
110' RT  
F.H. Stake 116+56

0.00  
15' RT  
109+22.5

Johnson Finish Grades - for Water Valves

Pope

Riley

12-29-48

#3 Valve on Main Line <sup>96' RT</sup> 116+21  
5.17 405.16 405.66  
4.93 410.83 405.90 <sup>75' RT</sup> 116+50

#4 Valve on Main Line <sup>109' RT</sup> 31+79  
5.05 411.57 411.99  
4.06 416.62 412.56 <sup>50' RT</sup> 31+50

#2 Valve on Main Line <sup>96' RT</sup> 109+37  
5.40 404.99 404.99  
5.24 410.39 405.15 <sup>75' RT</sup> 109+00

77

0.00

Taxiway

C0.13

F.B. 1997-63 Taxiway "C"

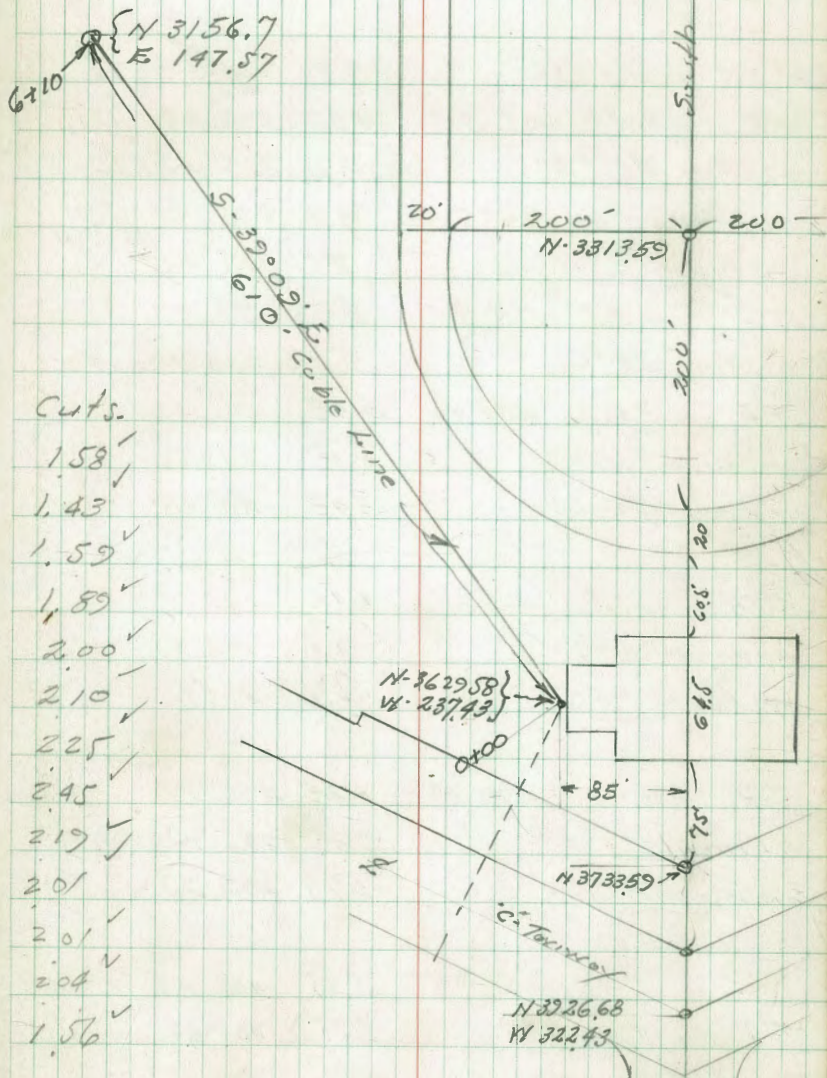
Taxiway "C"

Grades for Kilee Cable Line

Gibbs Airport

Walker  
Johnson  
Pope  
Riley  
1-3-49

Station	Dist	Angle	Dist	Angle	Dist
			4.03	91.26 - 811. #3	411.25
TD	4.93	415.28	4.66	410.35	
6+10			5.43	409.58	408.00
5+50			5.74	409.27	407.84
5+00			5.70	409.31	407.72
4+50			5.52	409.42	407.60
4+00			5.53	409.48	407.48
3+50			5.55	409.46	407.36
3+00			5.52	409.42	407.24
2+50			5.44	409.57	407.12
2+00 = 814			5.82	409.19	407.00
1+50			6.00	409.01	407.00
1+00			6.00	409.01	407.00
0+50			5.97	409.04	407.00
0+00 = 3629.58N 237.43W			6.45	408.56	407.00
	5.40	415.01		407.61	



S.M. on stake 16+57.15 12' RA FB 1696-43



FINAL ELEV. on Existing Sewer M.H.s  
Gibbs Airport  
Location sketch P-21

			0.03	
Chk. B.M. 100' at 815367	3.78	401.54	401.57	
T.P. 6.48	405.35	4.27	398.87	
on Rim <u>M.H.#8</u>	8.37	395.47		
on Ground of <u>M.H.#7</u>	8.8	395.0		
on Rim <u>M.H.#7</u>	8.51	395.33		
T.P. 4.27	403.84	5.93	398.87	
on Rim <u>M.H.#6</u>	5.93	398.87		
T.P. 3.62	404.80	5.43	401.18	
on Ground of <u>M.H.#5</u>	6.4	400.2		
on Rim <u>M.H.#5</u>	5.43	401.18		
T.P. 2.85	406.61	6.16	403.76	
on Ground of #4	7.1	402.8		
on Rim <u>M.H.#4</u>	6.16	403.76		
T.P. 4.00	409.92	6.85	405.92	
on Rim <u>M.H.#3</u>	6.85	405.92		
on Rim <u>M.H.#2</u>	5.78	406.99		
T.P. 3.95	412.77	5.95	408.82	
#1 on Rim <u>M.H.</u>	5.95	408.82		
Ground of #9 <u>M.H.</u>	4.2	410.57		
4.24	414.77	410.53		

Walker  
Johnson 79  
Rope  
Crawford 7-6-49

FB 2010-3-44

Ground = Same Elev.

Ground = Same Elev.

Ground = Same Elev.

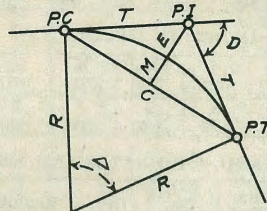
" " "

Ground = Same Elev.

on Rim M.H.#9 G.

# DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

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## CURVE FORMULAS

- Radius= $R = \frac{50}{\sin \frac{D}{2}}$  (1) Degree of Curve= $D$  and  $\sin \frac{D}{2} = \frac{50}{R}$  (2)  
 Tangent= $T = R \tan \frac{\Delta}{2}$  (3) Length of Curve= $L = 100 \frac{\Delta}{D}$  (4)  
 Middle ordinate= $M = R(1 - \cos \frac{\Delta}{2})$  (5)  $= R \text{vers} \frac{\Delta}{2}$  (6)  
 External= $E = T \tan \frac{\Delta}{4}$  (7)  $= R \div \cos \frac{\Delta}{2} - R$  (8)  $= R \text{exsec} \frac{\Delta}{2}$  (9)  
 Long Chord= $C = 2 R \sin \frac{\Delta}{2}$  (10)  $\Delta =$  Central Angle

## EXPLANATION AND USE OF TABLES

**Stations.**—Given P. I.—Sta. 161+60.35 to find Sta. of P. C. and P. T.  $\Delta = 62^\circ 10'$   $D = 8^\circ 20'$ . From Table IV for  $1^\circ$  curve  $T = 454.1$  and  $\div 8\frac{1}{3} = 414.49$  ft. From Table V correction  $= .36$  or  $T = 414.85$  ft. P. C. = Sta. P. I.  $- T = 157 + 45.50$ . Also from (4)  $L = 46.00$  and P. T. = Sta. P. C.  $+ L = 164 + 91.50$ .

**Offsets.**—Tangent offsets vary (approximately) directly with  $D$  and with square of the distance. Thus tangent offset for Sta. 58 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft.  $= 7.27$  ft. Distance  $= 158 -$  Sta. P. C.  $= 54.50$ , hence offset  $= 7.27 (54.50 \div 100)^2 = 2.16$  ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus  $(54.50)^2 \div (2 \times 688.26) = 2.16$  ft.

**Deflections.**—Deflection angle  $= \frac{1}{2} D$  for 100 ft.,  $\frac{1}{4} D$  for 50 ft., etc. For c ft.  $= (\text{in minutes}) .3 \times C \times D^\circ$  or  $= \text{defl. for 1 ft. from Table I} \times C$ . For Sta. 158 of above curve  $= .3 \times 54.5 \times 8\frac{1}{3} = 136.2'$  or  $2^\circ 16.2'$ , or  $= 2.50 \times 54.5 = 136.2'$  from Table III. For Sta. 159 deflection angle  $= 2^\circ 16.2' + 8^\circ 20' \div 2 = 6^\circ 26.2'$ , etc.

**Externals.**—May be found in similar manner to tangents. Thus for curve above is 115.37. For from Table IV for  $1^\circ$  curve  $E = 960.6$  for  $8^\circ 20' = 960.6 \div 8\frac{1}{3} = 115.27$  and from Table V correction  $= .10$  or  $= 115.37$  ft. Or suppose  $\Delta = 32^\circ$  and E is measured and found to be ft. What is D? From Table IV  $E = 230.9$  and  $\div 42 = 5.5$  or  $D = 30'$ .

FINAL ELEV

CHK. B.M.

T.P.

on R.

on G.

on R.

T.P.

on R.

T.P.

on G.

on R.

T.P.

on Ground

on R.

T.P.

on R.

on R.

T.P.

#1 on

Ground of

4.

TABLE I.—MINUTES IN DECIMALS OF A DEGREE.

Table with 11 columns representing minutes from 1 to 60 and 11 rows representing decimal values from .0167 to 1.0000.

TABLE II.—INCHES IN DECIMALS OF A FOOT.

Table with 11 columns representing fractions from 1/16 to 11/16 and 11 rows representing decimal values from .0833 to .9167.

TABLE III.—RADII, ORDINATES AND DEFLECTIONS.

Large table with columns for Deg., Radius, Mid. Ord., Tan Offset, Def. for 1 Foot, and multiple rows of data for angles from 0 to 30 degrees.

NOTE. Chord Deflection=2 times tangent deflection.

9x0  
1635  
2580

TABLE IV.—TANGENTS AND EXTERNALS TO A 1° CURVE.

Table with columns for Central Angle, Tangent, and External, repeated for angles from 1 to 30 degrees.

CHK. B.M.

TR

on R.

on G.

on R.

TR

on R.

TR

on G.

on R.

TR

on G.

on R.

TR

on R.

TR

on R.

on R.

TR

on R.

TR

on R.

TR

on R.

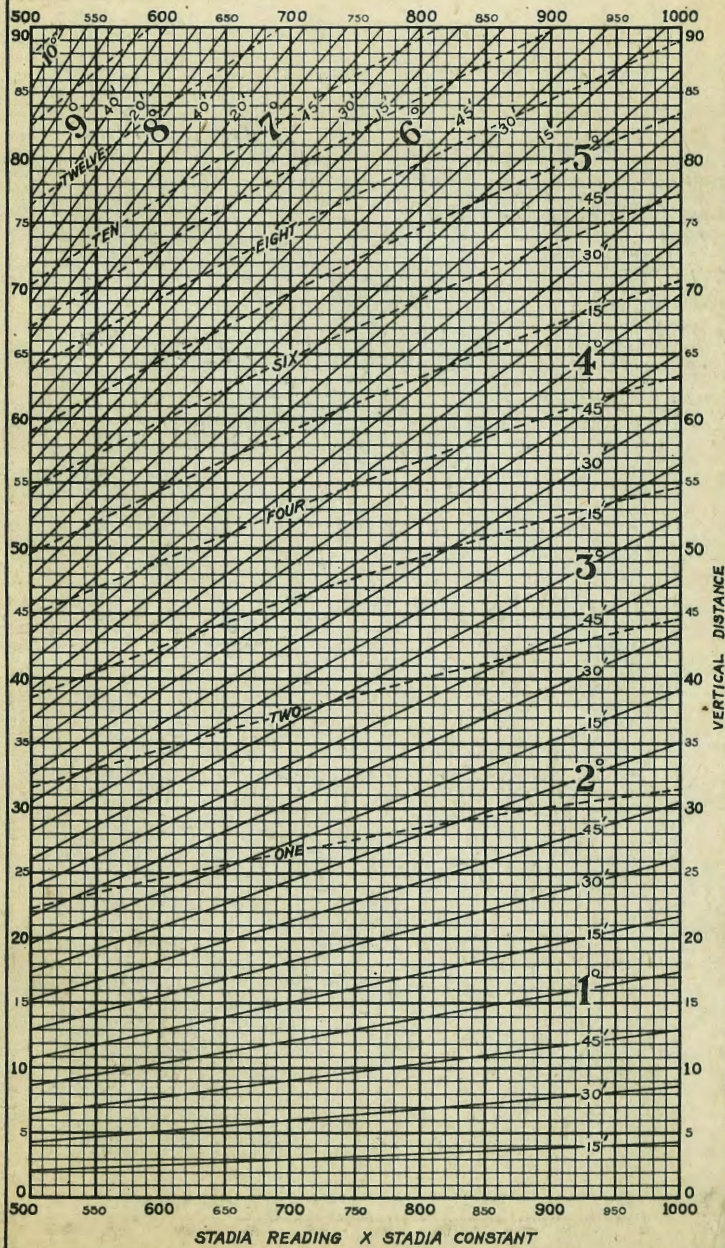
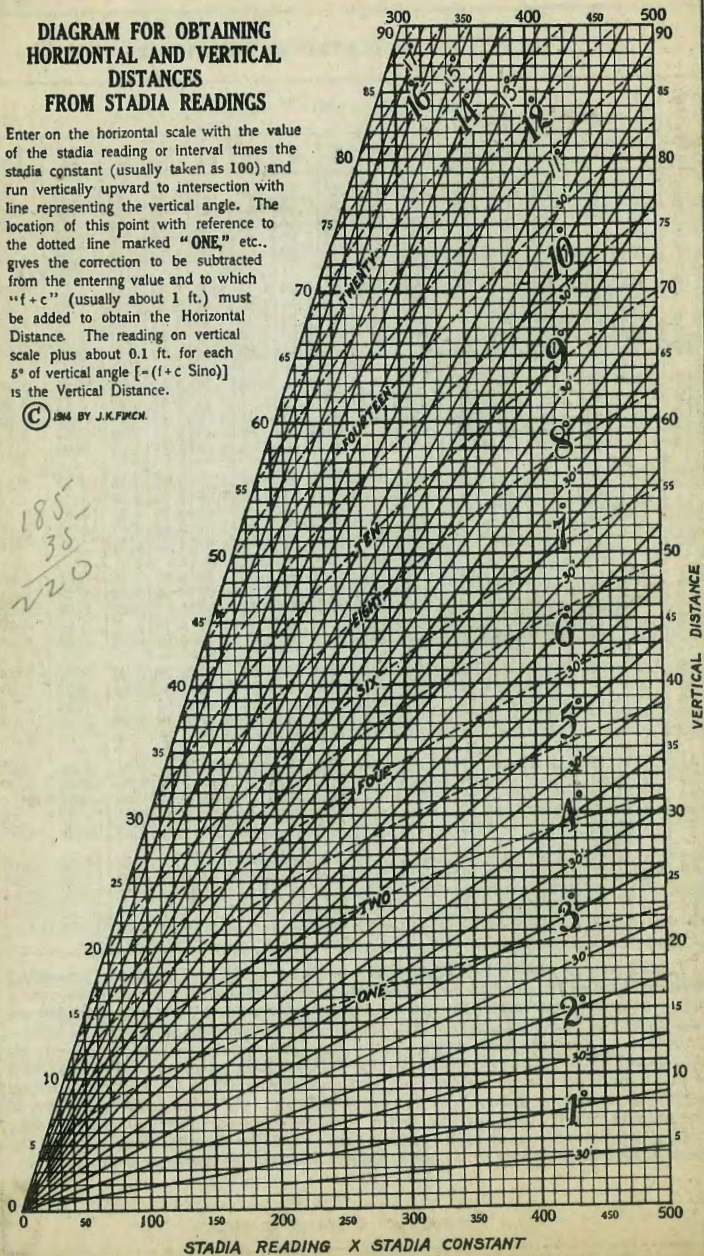


**DIAGRAM FOR OBTAINING  
HORIZONTAL AND VERTICAL  
DISTANCES  
FROM STADIA READINGS**

Enter on the horizontal scale with the value of the stadia reading or interval times the stadia constant (usually taken as 100) and run vertically upward to intersection with line representing the vertical angle. The location of this point with reference to the dotted line marked "ONE," etc., gives the correction to be subtracted from the entering value and to which "+c" (usually about 1 ft.) must be added to obtain the Horizontal Distance. The reading on vertical scale plus about 0.1 ft. for each  $\delta^\circ$  of vertical angle [ $-(1+c \text{ Sino})$ ] is the Vertical Distance.

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185  
35  
220



121+20  
219' RT

175  
219

Water  
Station  
19+60

Flow  
Current  
398.38  
20.6  
395.91

Bottom Pipe  
401.00

8+35  
11.25

175

395.89  
25.9  
398.48

398.38  
27.1  
395.63

91.18  
45.59  
97+70  
2.26  
957.44

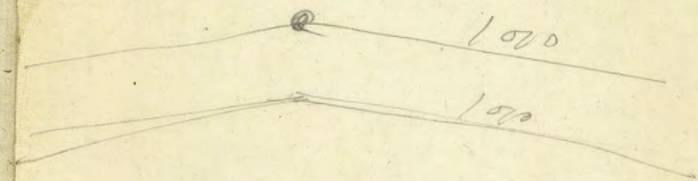
3090  
2226  
3866

11.18  
2.45  
13.63

8.16  
Current

262.8  
75  
187.5

156.08  
52



707 = current

3+20  
156.08  
4776.08  
93.18  
5+69.26  
-2  
5-167.26

41105  
43  
40675

3090  
76  
3850  
3866  
39848  
681  
39767  
589  
39756  
1216  
902  
310  
38582  
38568  
22160  
399.32  
119  
400.51  
395  
40590  
559  
411.33  
598  
45585  
3989X  
691

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1 1/2  
For Single Track Embankment.

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

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

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