E.

1932

COMPUTATION FOR
SURVEYOR'S NOTE
BOOK C (No.1 of 1932)

(COVERS pp 59-79; see
Book D for pp 1 - 59)

(This is Book 3 of 1932
in Parris numeration)

Fred P. Parris

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.
FOR SINGLE TRACK EXCAVATION.

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

Calculated by Julien A. Hall, M. Am. Soc. C. E.

For Keith's Railroad Curve Tabels see end of book.

Book number 2.
1932 Expedition

SEE OTER BOOK FOR PAGES 1-58 INCL.

(59) FHC =

dist / 5 = CM on MAP at Scale of 1CM=5M

STATION		COMPUTED HOR. DIST	COMPUTED VERT DIFF ELEV	ELEV.
X at A56				
1024		✓	✓	✓
1023	4.066	20.33	3.40	
1022	3.926	19.63	7.40	
586	2.590	12.95	✓	✓
588	1.690	8.95	.61	
1010	3.270	16.35	1.57	
1009	3.130	15.65	2.03	
1000	2.296	11.48		
1001	1.638	8.19	1.80	
1020	2.406	12.03	1.80	
1021	3.906	19.53	1.76	
603	1.604	8.02		
589a	1.356	6.78		
589	3.2570	16.285		
590	3.216	16.18		
601	3.664	18.32		
596	2.828	14.14		
1002	2.256	11.28		
1003	4.7770	23.885		
1004	5.114	25.57	1.80	
1019	4.892	24.46	.97	
X at A58	✓			
A.564	6.696	33.48	-0.245	
601	✓	✓	✓	
1003	2.138	10.69	✓	

STA.		COMP. HOR DIST	COMP. VERT DIFF ELEV	ELEV.
1028	3.1770	15.885		
1027	2.4570	12.285		
1027	4.136	20.68		
1027	4.254	21.27		
1027	4.374	27.87		
1026	2.738	13.69		
1007	2.210	11.05		
1008	2.150	10.75	2.82	
1006	1.912	9.56	1.52	
1005	1.398	6.99		
1014	1.038	5.19		
1013	.538	2.69		
1012	.854	4.27		
1016	1.004	5.02		
1011	1.368	6.84		
261	1.702	8.51		
261	1.420	7.10		
2616	1.472	7.36		
261	2.360	11.80	1.87	
261	2.472	12.36	1.30	
1011	2.920	14.60	1.09	
		831.		

(59) FYC-

STATION	100 DIST	VERT ANG	COMPUTED HOR. DIST	COMPUTED VERT DIFF ELEV	ELEV.
⊼ at A564					
1024	.206 ✓	✓	✓	✓	✓
1023	20.6	+ 9°30'	20.33	3.40	
1022	20.0	+ 10°31'	19.63	7.40	
586	t 12.95	✓	12.95	✓	✓
588	8.7	- 4°12'	8.95	.61	
1010	16.2	- 5°30'	16.35	1.57	
1009	15.6	- 7°25'	15.65	2.03	
1000	11.2	+ 0°40'	11.48		
1001	8.8	+ 13.0	t 8.19	1.80	
1020	12.0	+ 8°30'	12.03	1.80	
1021	19.4	+ 5°10'	19.53	1.76	
603	t 8.02		8.02		
589a	t 6.78		6.78		
589	16.0	- 0°40'	16.285		
590	t 16.18		16.18		
601	t 18.32		18.32		
596	t 14.14		14.14		
1002	t 11.28		11.28		
1003	23.6	+ 0°37'	23.885		
1004	25.4	+ 4°	25.57	1.80	
1019	24.2	+ 2°15'	24.46	.97	
⊼ at A587		0 at A564			
A 564	33.2	- 0°25'	33.48	- 0.245	
601	✓	✓	✓	✓	
1003	10.4	+ 0°30'	10.69	✓	

STA.	100 x OBS ROD DIST	VERT ANG	COMP. HOR DIST	COMP. VERT DIFF ELEV	ELEV.
1028	15.6	- 0°39'	15.885		
1027	12.2	+ 1° 6'	12.285'		
1027b	20.4	+ 1°21'	20.68		
1027a	21.0	+ 2°5'	21.27		
1027c	21.6	+ 2°0'	21.87		
1026	13.4	+ 0°54'	13.69		
1007	11.4	+ 13°40'	11.05		
1008	11.2	+ 14°40'	10.75	2.82	
1006	9.5	+ 9°0'	9.56	1.52	
1005	6.7	+ 0°25'	6.99		
1014	t 5.19		5.19		
1013	t 2.69		2.69		
1012	t 4.27		4.27		
1016	t 5.02		5.02		
1011	t 6.84		6.84		
261a	t 8.51		8.51		
261d	t 7.10		7.10		
261b	t 7.36		7.36		
261c	11.8	+ 9°0'	11.80	1.87	
261	12.2	+ 6°0'	12.36	1.30	
1011b	14.4	+ 4°40'	14.60	1.09	

SEE page 31.

STATION	100 X OBS ROD DIST	VERT ANG			
Tot Δ323					42.30
Δ318	61.0	-2°37'	61.18	-2.80 (2.30)	40.00
Δ322	59.0	-0°20'	59.29	-0.34	
Δ448	37.8	-3°53'	37.92	-2.57 (3.07)	
Δ776	19.1	-0°35'	19.38	-0.167	
Δ777	9.9	+0°45'	10.18	+0.136	
Δ778	36.3	-1°30'	36.58	-0.96	
832	+ 6.50		6.50		
831	10.3	-10°0'	10.28	1.82	
830	8.5	-8°17'	8.62	1.25	
829	12.8	-10°0'	12.705	2.25	
828	16.0	-7°50'	16.00	2.20	
827	13.3	-6°45'	13.41	1.585	
826	16.1	-5°10'	16.27	1.47	
825	12.7	-2°53'	12.97	.655	
824	12.8	-2°20'	13.08	.535	
788	+ 6.88		6.88		
790	+ 11.00		11.00		
793	15.00	+1°50'	15.28	.49	
821	22.2	+22.50'	19.18	8.05	
781	15.0	+17°20'	13.94	4.35	
782	15.4	+16°30'	14.44	4.26	
833	15.8	+16°34'	14.79	4.40	
834	12.6	+8°25'	12.63	1.97	
779	12.1	+10°10'	12.02	2.14	
780	12.8	+10°5'	12.70	2.26	

SEE page 36-37

12.236
11.858

7.584
3.916
2.036
7.316
1.300
2.056
1.724
2.5410
3.2000
2.682
3.254
2.594
2.616
1.376
2.200
3.056
3.836
2.788
2.888
2.958
2.526
2.404
2.540

(61)

STATION	100K OBS ROD DIST	VERT ANG		
At Δ323				
834	12.6	+1°10'	12.89	
778	11.2	+1°50'	11.49	
789	+10.98		10.98	
At Δ776		0°0W 323	19.29	
Δ323	19.1	+0°25'	19.39	+0.14
Δ322	52.3	+0°20'	52.59	+0.26
Δ448	20.4	-8°20'	20.26	-2.96
790	10.2	+4°0'	10.45	+0.73
788	16.2	-3°15'	16.44	-0.93
821	23.8	+21°23'	20.8	+8.12
833	14.2	+11°	13.97	2.71
782				
781				
834		direction only		
780				
779				
835				
778				
793	10.0	+0°30'	10.29	
793a	7.6	+2°10'	7.885	
798	10.8	+1°20'	11.09	
At Δ323				
Δ318	61.0	-2°37'	61.18	-2.80
Δ776	19.2	-0°24'	19.29 19.59	-0.136

2.578
2.298
2.196

3918
10518
4052
2090
3288
4.16
2794

2058
1577
2218
12236
3918

STATION			
At 4323			
821-a	3.800	19.00	7.88
821-b	3.840	19.20	7.98
833-a	3.416	17.08	6.63
843	5.350	26.75	10.20
840	5.670	28.35	10.85
839	6.080	30.40	11.20
831	3.180	15.90	1.765
835	3.258	16.29	
833-b	2.384	11.92	1.46
836	4.9370	24.685	
418	5.936	29.68	1.90
417	6.3334	31.667	1.02
418-a	6.457	32.26	1.17
416	7.254	36.27	
420	7.658	38.29	
420-a	6.698	33.49	
817	4.796	2398	
816	4.0970	20.485	
811	3.6990	18.495	
809-a	3.898	19.49	
809	3.818	19.09	
810	3.9670	19.335	.82
820	5.016	25.08	

At 4776			
4323		✓	✓
4322		✓	✓
821-a	3.9950 ✓	19.975	8.15
821-b	3.110 '	15.55	5.25
833-a	4.656 '	23.28	6.85
843	✓		
842			
841			
839			
817		n only	
816			
811			
809-a			
809			
810	✓		
805-a	2.218 '	11.09	
820	✓	✓	
820-	2.726 0'	13.63	.98
847	5.2830 '	26.415	1.50
846	4.0510 1'	20.255	.96
803	2.7170 '	13.585	
806	2.776 2'	13.88	.53
845	8.486 0'	42.43	12.80

(62)

STATION	ROD DIST	ANG		
At A323				
821-a	22.0	+22°30'	19.00	7.88
821-b	22.2	+22°35'	19.20	7.98
833-a	19.4	+21°12'	17.08	6.63
843	30.3	+20°55'	26.75	10.20
840	32.2	+21°0'	28.35	10.85
839	34.2	+20°15'	30.40	11.20
831	15.8	+6°20'	15.90	1.76
835	16.0	+0°30'	16.29	
833-b	11.8	+7°	11.92	1.46
836	24.4	+1°15'	24.68	
418	29.5	-3°40'	29.68	1.90
417	31.4	-1°51'	31.667	1.02
418-a	32.0	-2°5'	32.26	1.17
416	36.0	-1°35'	36.27	
420	38.4	+0°35'	38.29	
420-a	33.2	-0°25'	33.49	
817	23.7	-1°13'	23.98	
816	20.2	-1°0'	20.48	
811	18.2	-0°10'	18.49	
809-a	19.2	-0°55'	19.49	
809	18.8	-1°0'	19.09	
810	19.06	+2°25'	19.335	.82
820	24.8	+1°24'	25.08	

At A776				
A323			✓	✓
A322	✓	✓	✓	✓
821-a	23.0	+22°15'	19.975	8.15
821-b	16.4	+19°30'	15.55	5.25
833-a	25.0	+16°22'	23.28	6.85
843	✓			
842				
841				
839				
817		direction only		
816				
811				
809-a				
809				
810				
805-a	10.8	-0°51'	11.09	
820	✓	✓	✓	
820-a	13.4	+4°10'	13.63	.98
847	26.2	+3°16'	26.415	1.50
846	20.0	+2°41'	20.255	.96
803	13.3	+1°30'	13.585	
806	13.6	+2°12'	13.88	.53
845	46.00	+6°50'	42.43	12.80

63

STATION

$f+c = .3$

(64)

At AB,		000 on A_1			74.70
ΔA_1	52.4	+11°0'	46.16	+9.90	84.70
ΔR_1	18.6	-0°4'	18.89	-0.12	74.65
U-5	40.0	+1°25'	40.26	.98	
U-6	42.2	+1°53'	42.45	1.14	
U-7	48.0	+8°26'	47.26	7.00	
U-3	51.2	+10°10'	49.92	8.88	
U-5	52.5	+10°15'	51.13	9.30	
U-4	52.1	+9°30'	51.92	8.51	
U-2	52.2	+9°53'	50.97	8.45	
U-1	45.6	+10°22'	44.47	8.10	
V_1	60.4	+16°4'	57.06	16.08	90.78
V_2	55.8	+17°35'	51.00	16.10	90.80
V	37.8	+12°42'	36.26	8.16	
U-8	28.9	+3°52'	29.08	1.96	
U-9	23.4	+2°21'	23.56	1.94	
P	13.6	+3°22'	13.85	.82	
P_2	10.3	+5°0'	10.52	.92	
P_1	3.9	"	3.69	"	
D_1	17.8	+4°8'	17.26	.93	
D_2	17.0	+4°5'	16.48	.925	
S-1	29.2	+2°30'	28.94	1.28	
K-1	13.4	+6°4'	13.56	1.34	
U-10	28.0	+5°53'	25.33	2.90	
U-13	23.6	+6°20'	21.0	2.62	77.32

51.5
16.0
49.90

53.6
1.47
51.92

9.232
3.178
8.252
8.490
9.452
9.984
10.226
10.176
10.194
8.894
11.412 — } flow level. 7 #59.
10.100 — }
7.252
5.816
4.712
2.770
7.104
7.738
3.452
3.296
5.784
2.712
5.066
4.20

606
+2
186

1606
142
186
372

17.8
.60
17.70

37.32
7.464

142
134
106
92

781
1.84
36.26

525
1.52
51.

7470
8.88
83.58
13.58
87.16

(65)

STATION					
⊼ at △B					74.70
U12	26.8	+11°20'	25.90	5.20	79.90
U11	31.0	+13°25'	29.62	7.10	81.80
△87	36.0	+14°49'	33.94	+8.40	
U-14	28.8	-13°30'	27.52	6.12	
U-15	29.0	-13°54'	27.61	6.165	
⊼ at △A1		0°00 w B.			84.70
△B	53.6	-10°56'	51.93	-10.100	74.70
△C	✓	✓			
△R	53.8	-10°53'	52.13	-10.05	74.65
D1	42.0	-13°51'	39.94	9.61	
D2	42.0	-14°20'	39.76	9.81	
F1	24.3	-25°24'	20.00	9.50	
F2	26.2	-17°35'	24.09	7.60+2.00	
W1	✓	✓	✓	✓	
61a	19.8	0°0'	20.1	✓	
55a	✓	✓	✓	✓	
68a	26.4	+6°38'	26.355	2.84	
68-b	34.6	+6°38'	34.43	4.00	
△69	28.4	+7°26'	28.22	3.68	
E2	18.6	+7°45'	18.55	2.52	
V2	28.6	+11°40'	27.72	5.70	
E	✓	✓	✓	✓	
V3	17.5	-8°24'	17.42	-2.58	82.12
V4	13.5	-6°40'	13.61	1.59	83.13

2.87
3.84
.03

1222
840
3.40

4.78
5.922
6.788
5.504
5.522

9990
7.980

4180
2
8.360

84.70
9.45
75.15
.40
74.75 Count level.
Count. 2.

74.70
.40
75.10

7.60
2.00
9.60

4212
2
8.424

5.270
6.886

4313
2
8.626

3.710
5.544

84.70
2.08
1.59
82.12
83.11

3.484
2.122

STATION

⊼ at △ 11				
△4	44.0	-1°32'	44.28	-0.412
1ₐ	15.7	-16°32'	14.7	+.37
⊠85	8.0	-16°32'	7.6	-2.39
20-d	14.8	+5°0'	14.98	1,315
20-c	16.2	+4°10'	16.140	1.20
20-b	19.0	+8°0'	18.92	2.67
20 a	24.0	+12°52'	23.09	5.30
19-a	21.0	+12°30'	20,22	4,50
20 e	16.3	+4°45'	16,78	1.40
20 h	39.0	+20°0'	33.85	12.30
20 g	34.0	+20°35'	30,20	11.30
20 f	28.2	+16°50'	26,10	7.90
⊼ at △ 70ₐ		0°ow 70		
△70	58.4	+17°21'	53.5	+16.70
△70b	23.6	-17°55'	21.64	-7.0
60-2	14.6	+4°45'	14.8	+1.225
60-3	14.4	+3°44'	14.63	+.95
60-4	14.4	+2°20'	14.67	+.60
60-7	20.4	+3°46'	20.61	+1.32
60-9	30.0	+5°	30.07	+2.62
60-10	32.0	+4°50'	32.07	+2.70
60-11	26.2	+3°20'	26.41	+1.54
60-6	16.8	+0°30'	17.08	.05

1.5 2
2.9 9 6
3.2 8 0
3.7 8 2
4.6 18
4.0 4 4
3.3 5 6
6.7 7 0
6.0 4 0
5 2 2 0

19.38
7.90
11.5

4.3 2 4 - 4.3 6 8
2.9 6
2.9 2 6
2.9 3 4
4.1 2 2
6.0 1 4
6.4 1 4
5.2 8 2
B.4 16

⊼ at △70a				
60-5	10.0	-0°35'	10,28	-.078
60-8	25.7	+6°0'	25.71	2,70
60-18	24,0	+7°45'	23.86	3.25
60-17	34.0	+3°	34.21	1.80
60-16	t 5,0	✓	5.00	✓
60-19	12.4	+3°17'	12.66	.75
60-1	17,0	+7°35'	17.00	2.27
60-20	22.0	+9°25'	21.71	3.60
60-12	7,8	+17°15'	7.40	2.36
60-13	t 4,25	✓	4.25	✓
60-15	10,0	-5°15'	10,22	.9
⊼ at △70b		0°ow70-a		
△70a	24.2	+18°25'	22.08	+7.68
△70c	45.0	-34°0'	31.30	-22.0
60-30	13.8	-30°	10.59	-4.90
60-31	12.4	-35°	8.51	-5.99
60-29	13.6	-28°30'	10.70	-5.82
60-28	11.0	-25°15'	9.50	4.36
60-27	12.4	-1°30'	12.67	.33
60-22	18.4.	-2°	18.67	.65
60-26	12,8	-0°30'	13.08	.13
60-21	7.2	-2°	7.47	.26
60-25	t 4.50	✓	4.50	✓
60-24	t 3,10	✓	3,10	✓
60-23	t 2.55	✓	2,55	✓

2.056
5.142
4.772
6.842
1.00
2.532
3.400
4.342
1.480
.850
2.044

4.416 - 4368
3120 6240
2.118
1.702
2.140
1.900
2.534
3.734
2.616
1.494
.900
.620
.510

7.34
1670
-24.04
22
.46

4416
437
2|8736
4368

3120
3120
2|6240
3120

⩚ at △70c				
△70b	45.0	+34°10′	31.10	+22.05
△281	40.0	−32°0′	29.00	−18.05
60-32	12.6	+22°45′	11.00	4.60
60-33	11.4	+14°30′	10.97	2.84
60-34	11.6	+9°45′	11.56	1.985
60-35	18.4	−14°20′	17.56	4.50
60-36	21.6	−16°30′	20.26	5.95
60-38	34.0	−22°20′	30.40	12.00
60-37	37.0	−23°30′	31.40	13.60
279a	38.0	−30°30′	28.50	16.75
279.	32.0	−32°	23.50	14.50
278a	17.0	−17°	15.82	4.95
276n	27.0	−2°	27.268	.95

31.20 6.240
38.70
2.200
2.194
2.312
3.512
4.052
6080
6.280
5.700
4.700
3164
5.453

4.6
1.8
64

−24.
582

−4 4.60 46

					Elev.
π at ΔA					56.68
ΔC	33.0	-4° 2'	33.13	-2.30	54.38
1062	15.6	-9° 30'	15.468	-2.58	
1065	22.6	-7° 35'	22.5	-3.10	
1064	19.4	-7° 25'	19.58	-2.55	
1063	14.0	-10° 35'	13.82	-2.55	
1059	20.2	-7° 25'	20.26	-2.62	
1058	21.6	-2° 30'	21.86	-.95	
1057	22.0	-1° 10'	22.28	-.45	
1056	25.6	-4° 30'	24.25	-2.1	
1066	48.3	-3°	48.46	-2.54	
1067	47.6	-3°	47.77	-2.50	

See page 6

6.626 See page 78

3.0936

4.50

3.916

2.764

4.052

4.372

4.456

4.850

9.692

9.554

3.10
3.23

323
232
91

33.68

34.59

Δ

⊼ at Δ a					56.65		
Δ C	33.0	-3°57'	33.14	-2.30	54.35	6.628	SEE PAGE 2
Δ H,B	89.0	-2°00'	89.19	-3.10 [20]	53.45	17.838	
Δ 28	59.4	+2°37'	59.57	+2.72		10.914	
Δ 29	27.2	+4°40'	27.32	+2.22		5.464	
46-b	✓	✓				✓	✓
45-b	5.3	-5°55'	5.55	.55			1.110
47	11.2	-14°	10.90	2.70			2.180
48	16.0	-9°50'	15.93	2.85			3.186
89c	21.6	+0°27'	21.89				4.378
89a	23.0	-1°30'	23.28				4.656
84a	18.4	-8°20'	18.31	2.68			3.662
47a	14.7	-10°35'	14.49	2.70			2.898
50	10.7	-13°35'	10.39	2.51			2.078

⊼ at H,B					53.45	
Δ A	89.0	+2°04'	89.18	+3.20	56.65	17.836
Δ 29	66.0	+4°58'	65.91	+		13.182
Δ 28	34.8	+9°20'	34.18	+5.60		6.836
Δ D	46.2	-0°40'	46.48	-0.54 +.17 [-.37]	53.18	9.296
Δ F	39.4	-1°30'	39.25	-0.10		7.850
Δ G	50.0	-2°10'	50.23	-1.90		10.026
Δ E	98.0	-2°20'	98.14	-0.40		19.628

5645
40
1645
3290

(72)

Δ at A G					51.42
Δ H, B	60.0	+2°03'	60.25	+2.12	53.45
Δ L	28.4	″	28.7	″	
Δ K	28.2	-13°25'	26.97	-6.42	45.00
Δ E	48.0	-2°40'	48.18	-2.25	
904	28.8	-4°20'	28.93	-2.19	
901	+3.19	″	3.19		
902	+4.20	″	4.20		
903	8.4	+25°30'	8.08	3.37	
900	12.3	+2°10'	12.582	.47	
Δ at A L					51.58
Δ G	28.4	-0°20'	28.68	-0.166	51.42
Δ M	26.6	+4°22'	26.72	2.00	53.58
139	72.5	+2°35'	72.63		
Δ N	32.8	+3°40'	32.96	+0.210	
910	7.8	+1°50'	7.99	+.26	
911	11.0	+7°40'	11.10	1.50	
912	16.0	+5°30'	16.15	1.56	
916	19.4	+9°25'	19.17	3.18	
917	22.0	+7°	21.97	2.70	
913	14.2	+2°	14.48	.50	
914	13.8	-1°	14.09	0.26	
907	11.6	-0°45'	11.89		
908	16.6	-0°30'	16.89		
915	20.0	-2°30'	20.26		

12.050
5.74
5.394
9.636
5.786
.638
.840
1.616
2.5164
6
5.736
5.344
14.530
6.592
1.598
2.220
3.230
3.814
4.394
2.896
2.818
2.379
3.378
4.052

11.58
.12
23.16

Π at △L					
918	20.0	-2°15'	20.27	.80	
909	13.0	+1°45'	13.285		
904	"	"	"		
905	28.0	-1°25'	28.28		
906	25.8	-1°	26.09		
901	28.4	-1°20'	28.68		
Π at △M					53.58 ok
△A	88.0	+2°0'	88.19	+3.10	56.68 ok
△L	26.5	-4°0'	26.65	-1.97	
△112	77.6	-12°39'	74.40	-16.95 -16.60	36.98 ok
△95	63.6	-6°10'	63.16	-6.80	
931	43.6	-11°45'	42.18		
923	24.4	-23°25'	20.80	9.10	
922	25.4	-23°52'	21.50	9.50	
920	49.7	-17°30'	45.49	14.25	
921	6.8	-15°40'	6.60	1.84	
933	7.0	+3°45'	7.27	.47	
916	10.8	+8°	10.89	1.53	
932	6.3	+12°	6.30	1.40	
931	6.0	+4°30'	6.26	.50	
934	±3.40	"	3.40		
934-2	36.2	+0°40'	36.48		

4.054
2.657 0

5.656
5.218
5.636

17.638
5.330 Re page 19.
14.880
12.632

8.436
4.160
4.300
9.098
1.320
1.454
2.178
1.260
1.252
.680
7.296

36.98
16.60
√3.58

⊼ at △K					45.06
△G	28.4	+13°25'	27.10	+6.47	
△E	24.3	+10°0'	23.86	+4.20	
△P	37.8	-0°0'	37.68	-3.95	
929	15.6	-1°45'	15.86	-0.48	
947	18.0	-3°	18.25	.95	
941	7.1	+18°30'	6.66	2.225	
942	10.0	+13°35'	9.73	2.35	
945	9.0	-3°	9.285	.485	
946	16.0	-5°50'	16.13	-1.74	43.26
935 b	20.3	-4°20'	20.48	-1.55	
935-a	17.8	-1°45'	18.08		
935-c	15.8	+1°	16.09		
939	12.3	+1°	12.59		
936	11.0	+2°10'	11.285		
937	± 2.25	"	2.25		
940	± 2.85	"	2.85		
935	16.8	+7°50'	16.78	2.30	
935 d	26.0	+19°45'	23.51	8.40	
⊼ at △E					49.36
△H,B	98.0	+2°20'	98.14	+4.00	53.46
△G	48.0	+2°35'	48.1	+2.17	
△K	24.2	-10°10'	23.76	-4.20	45.16
△112	86.0	-8°20'	84.50	12.38	36.98
920 a	46.	-14°45'	43.30	11.40	37.96

5.420
4.772
7.536
3.172
3.650
1.332
1.946
1.857
3.726
4.096
3.616
3.218
2.518
2.2570
.450
.570
3.356
4.702

19.628
9.62
4.752
16.900
8.660

ΔABE					49.36
927	25.4	-17°17'	23.33	7.30	42.06
926	38.2	-10°10'	37.30	6.70	
924	44.0	-7°21'	43.57	5.60	
928	24.2	-9°	23.90	3.78	
928a	28.0	-1°25'	28.28	.70	
904	″	″	″	″	
929	16.0	-17°20'	14.85	4.65	44.71
944a	9.0	-27°	8.40	3.76	
944	8.6	-13°50'	8.39	2.07	
943	13.0	-10°9'	12.89	2.30	
950	11.0	-22°40'	9.61	4.02	
954	± 3.72	″	3.72		
953	± 4.50		4.50		
952	± 2.60		2.60		
951	± 0.70		0.70		
955	33.0	-33°30'	23.20	15.27	
956	22.6	-34°30'	15.60	10.70	
957	50.0	-30°	37.80	21.80	
958	40.0	-29°45'	30.50	17.35	
ΔatAS					
ΔHB	88.0	-12°55'	83.90	-19.20	53.45
ΔD	51.0	-24°25'	42.50	-19.35 (40)	
ΔQ	27.6	+20°50'	24.40	+9.30	
972	19.4	+21°20'	17.12	6.68	

4.666
7.460
8.714
4.780
5.656
″
2.990
1.480
1.678
2.578
1.922
.744
.900
.520
.140
4.640
3.120
7.560
6.100
″
16.780
8.500
4.880
3.424

49.36
21.80
27.56

4936
730
42.06

21.

4936
467
4469
420
45.16

19.35
6.68+
26.03

14.20
6.70
7.50

1940
9.30
28.70

木 at △ S						
971	22.8	+18°	20.90			4.180
968a	15.8	+14°35'	15.08	3.92		3.016
969a	15.0	+19°30'	14.37	4.84		2.874
967a	11.6	+17°10'	10.86	3.36		2.172
969	9.6	+14°30'	9.28	2.40		1.856
968	11.8	+8°40'	11.825	1.80		2.365
970	8.2	+8°30'	8.314	1.24		1.6628
967	6.6	+5°0'	6.85	.60		1.370
978 981	20.0	-24°	17.00	7.55		3.400
978a	18.0	-31°	13.40	8.10		2.680
976	33.0	-21°	29.00	15.20		5.800
975	31.4	-23°	26.80	11.20		5.360
974	24.6	-32°	17.90	11.20		3.780
974a	27.0	-35°	18.35	12.80		3.670
981-b	23.0	-36°	15.22	11.20		3.044
981	14.0	-23°30'	12.10	5.22		2.420
木 at △ Q					81.65	
△ D	61.6	-32°55'	43.50	-28.60 (65)	53.00	8.700
△ S	28.0	-20°53'	24.6	-9.25	72.40	4.92
961	✓	✓	✓	✓		
20-h	28.2	-2°25'	28.45	1.20	71.20	5.690
973c	9.8	+1°50'	10.09	.33		2.018

11.39
13.11
22.8
2

2310
220
2090

7.55

14.24
8.10
22.34

11.20
14.24
15.20
29.44

14.24
5.22
19.46

28.40
9.31
19.15

(77)

* at AQ				
973b	6.0	-12°0'?	6.03	1.28
961	t 3.09	"	3.09	
973	7.8	-16°35'	7.48	2.07

1,206
,618
1,496

(78)

木 at ΔD					53.18
ΔH,B	46.2	+0°17'	46.18	+0.23	53.41
ΔQ	62.0	+33°15'	43.75	+28.40	81.65
ΔS	51.0	+24°30'	42.5	+19.40	72.40
ΔR	55.0	-9°5'	53.96	-8.60	44.58
Δ11	51.0	+17°50'	46.50	+14.42	
959 ✓	22.0	+18°10'	20.38	6.60	
-?. 960 ✓	22.0	+18°41'	20.28	6.80	
986	15.6	+6°	15.73	1.65	
990	17.2	+6°	17.31	1.82	
991	17.0	+1°30'	17.29		
992	16.2	+0°15'	16.495	-	
993	14.6	0°	14.9		
982	+3.87	✓	3.87		
木 at ΔH,B,					53.45
ΔA	90.6	+2°8'	90.78	+3.36	
1030	32.3	+1°15'	32.57		
1047	33.7	+2°0'	33.96	+1.18	
1031	21.8	+1°51'	22.07	+.66	
1032	24.0	+3°10'	23.56	+1.34	
1035	19.4	+2°30'	19.66	+.81	
1037	22.0	+7°30'	21.92	+2.88	
1033	24.4	+6°35'	24.36	+2.71	
1039	27.4	+9°43'	26.92	+4.61	
1044.	30.4	+12°41'	29.22	+6.60	

20.10
28
20.38

.910
.30
.28.00

22.3

8.750
18.50
10.792
9.300
4.076
4.056
3.146
3.462
3.458
3.299
2.98
.774

28.49
19.40
9.09

766
755
11

29.3
.89
28.41

20.28

28.70
19.40
9.90

314
.18

22.3
2.14
20.16

22.80
.28
20.12

1.8156
6.514
6.792
4.414
4.712
3.932
4.384
4.872
5.384
5.844

⊼ at △ H,B,		0°0'N.A.			53.45
1043	34.0	+17°0'	31.36	+10.10	
1044-a	27.0	+15°5'	25.46	+6.27	
1040	21.6	+13°	20.80	4.80	
1041	19.7	+11°	19.37	3.75	
1042	16.6	+8°30'	16.53	2.47	
1042-a	14.3	+6°	14.54	1.50	
966	30.0	+1°15'	30.27	.66	
966-a	36.4	+7°	36.155	4.45	
1046	36.2	+7°10'	35.94	4.50	
962-b	55.0	+14°10'	51.94	13.10	
⊼ at △ R					44.58
△ D	55.2	+9°0'	54.10	8.60	53.00
△ T	24.2	-12°25'	23.18 28	5.06 5.19	39.50
⊼ at △ T					
△ R	24.2	+12°5'	23.41 27	PT=5.08 -5.02	
△ V	43.0	-19°5'	41.60	-13.30	26.20
⊼ at △ V		-			26.20
△ T	43.0	+19°5'	41.60	13.30	31.
W_2	680	-22°20'	58.45	24.00	+ 2.20

SEE page 70.
△A - Steale terrace.

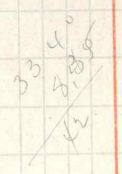
6.272
5.092
41.60
3.874
3.306
2.908
6.054
7.2310
7.188
10.388

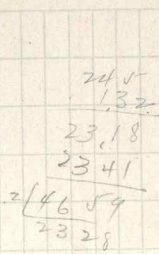
4.656

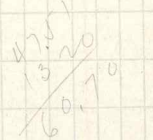
4.656

8.32

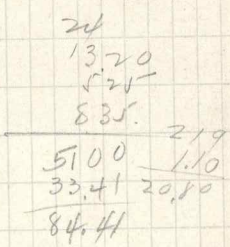
8.32
11.690







84



	100 x OBS ROD DIST	VERT ANG	HOR COMP DIST	VERT COMP DIST	ELEV.
⏃ at △21					
△20	44.8	+1°49'	45.05		
△11	45.7	+0°40'	45.97		
△R+	27.6	+15°16'	26.2		
△B.M	53.8	-15°46'	52.8		

1933 FIELD N. BOOK → Page 89

CALCULATIONS IN CAMP

MAY-17-1933

27.4
1.193
26.207

54.1
1.306
52.796

45.1
45.05

45.96

54.1
3.98
50.12
49.7

53.8
3.98
49.82

49.95

Tot △ 20

B. H	59.6	-15°29'	58.47
△ 21	44.9	-1°50'	45.15
△ R	62.4	+5°10'	62.19
△ 11	±8.75	0°0'	8.75

56.9

59.9
4.25
58.65

59.9
4.25
58.65

56.1
8.66
.44

59.6
4.25
58.36

59.9
1.425
58.475

56.9
1.5

19
53.8
49.2
4.6
59.6
56.9
27

45
.046
45,154

627
.51
62.19

from page 107
Field Note book #2 - 1933

	100x Rod. Reading	Vert Ang	Hor Com. Dist	Vert Com. Dist
68	28.8	-4°10'	28.95	
70				
69				
68-D	37.0	+4°30'	37.07	
68-C	25.4	+7°0'	25.32	
✓				
67-1	20.0	0°0'	20.3	
68-b	26.2	+7°10'	25.09 wrong	
68-E.	21.0	-4°45'	21.15	
68-F	20.0	-4°45'	20.17	
68-G	24.4	-5°0'	24.51	
68-H	30.4	+5°0'	30.46	
68-i	30.2	+3°0'	30.42	

291
.15
28.95

.23

25.7
.38
25.32

26.5
.41
25.09

203
.14
20.17

247
.19
24.51

213
.147
21.153

307
.234
30.466

30.5
.08
30.42

			CALC. HOR DIST	CALC VERT DIST.
33	25.	+19°45'	22.75	
32	23.	+21°15'	20.10	
30	18.4	+15°0'	17.57	
31	15.6	+0°50'	15.87	

f+c. = .3

45.50
40.2
38.14
31.74

187
1.60
17.1

15.9
03
15.87

18.87
1.025
17.575

TO BE CHECKED -1933-

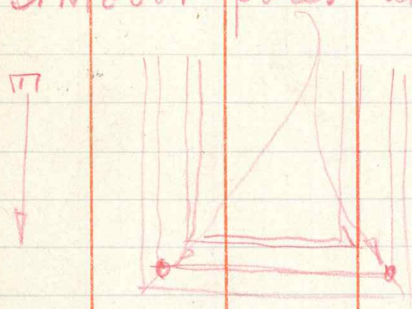
LOCATE ALL MONUMENTS

TO BE CHECKED NEXT YEAR 1933

especially width & steapness of terraces on steale terrace infront of str. 44.

LOCATE EVERYTHING Possible ON 42 or K-5 Espec- terraces difference in Elev between front and back. terrace at ground, outside Corners and as much of section as possible

5. Meter poles at Corners



at what level I dont know find out.

Also mound to East of K-5 that Connects to it,

Relocate all possible points on O-13 or all 27

Locate trench in front of P-7 with relation of being at rt angles to walls-

1933

TO BE CHECKED NEXT. YEAR.

MEGALITHIC STAIRWAY WEST. G. & terrace of West Group.

ORIENTATION of str's 42. 27, 26. → WITH stairs at bottom.

Relocate altars & steale especially south group.

inset stairs on terrace of Large pyramid facing N.W. on Camp plaza.

Look for possible stairs facing South from terrace of Str 4 & 5.

terraces of str 44.